



REPORTABLE
INFECTIOUS DISEASES
IN
KANSAS

1997 SUMMARY



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INTRODUCTION

Purpose and format of this report

This is the sixth annual summary of reportable diseases by the Kansas Department of Health and Environment (KDHE). The purpose of the report is to provide useful information on notifiable infectious diseases in Kansas for health care providers, public health workers and policy makers.

The report is divided into two sections. Section I presents summaries of 30 diseases or conditions of public health importance. Data are presented mainly by graphs and statistics. Rates have been calculated to adjust for population size allowing for more meaningful interpretation of the data. Rates by demographic characteristics and proportional changes from last year are reported when there were more than 50 cases of a disease reported in the state. If the total number of cases in the state was < 4 , then only limited demographic information is presented (to ensure confidentiality of the patients). Whenever possible, information on disease trends for the United States has been included for comparison with Kansas trends.

Disease incidence for urban and rural areas has also been included for most diseases. Urban counties were defined as counties with a population density of 150 or more persons per square mile, and represent the four largest metropolitan areas in the state [Kansas City (Johnson and Wyandotte Counties), Wichita (Sedgwick County), Topeka (Shawnee County), and Lawrence (Douglas County)], which account for 48% of the population in the state. The remaining 100 counties in the state are classified as rural for the purposes of this report.

Section II provides the list of reportable diseases during 1997, a summary of cases of selected conditions by year for 1984-1997, and a summary of cases by county for 1997. Also included are a list of county abbreviations for use with Table 2, a map of Kansas with county names, and a list of publications on disease control from KDHE in 1997.

Disease reporting in Kansas

Selected diseases are reportable by law in Kansas by health care providers, laboratories and hospitals (Section II, Table 1). Reports of infectious diseases are usually first sent to the local health department, which is responsible for providing basic public health interventions such as providing immune globulin to a household contact of a person with hepatitis A or treating sexual contacts of a person with gonorrhea.

Reports are then sent to the Office of Epidemiologic Services or the Bureau of Disease Prevention and Health Promotion in the Kansas Department of Health and Environment for review. After reports have been entered into the National Electronic Telecommunications System for Surveillance (NETSS), weekly summaries are forwarded to the Centers for Disease Control and Prevention (CDC) for inclusion in the Morbidity and Mortality Weekly Report. The final step in the surveillance system occurs when CDC sends selected data to the World Health Organization.

Surveillance for influenza follows a different model. During 1997-1998 influenza season, nine physicians participated in the statewide sentinel physician-based surveillance system. Offices were contacted weekly by phone to determine the number of patients seen with influenza-like illness by four age groups and total patient visits for all reasons. Influenza-like illness is defined as fever

(≥ 100 F [37.8 C], oral or equivalent) AND cough or sore throat. To compare regional activity, aggregate information from Kansas is sent weekly to the Centers for Disease Control and Prevention. This system plays a key role to successfully monitor influenza in the United States.

Important disease trends in 1997

The number of vaccine-preventable diseases remained low with no cases of *Haemophilus influenzae* meningitis, measles, polio, rubella or diphtheria reported. Mumps remained at low levels. Pertussis and hepatitis B continued to be a problem.

Both the number of cases and rates of infection increased in 1997 for the three most prevalent sexually transmitted diseases (chlamydia, gonorrhea and syphilis). Chlamydia continues to be the most commonly reported STD in the state. The number of reported cases of gonorrhea increased for the first time in six years. Both infections are the leading causes of preventable infertility, pelvic inflammatory disease and ectopic pregnancy. Adolescents and young adults (ages 15-24) accounted for 74% of both of these infections combined.

The number of primary and secondary cases of syphilis increased by 14% (4 cases) compared to last year. This represents the first yearly increase in the five years. Although the total number of cases increased, the number of counties reporting at least one syphilis infection decreased. Continuing the trend that began last year, the number of adolescents (ages 15-19) diagnosed with primary and secondary syphilis experienced the largest increase in reported infections. Two cases of congenital syphilis were reported in 1997.

Among all 3 priority bacterial STDs, racial and ethnic minorities are disproportionately affected, which mirrors national trends. Both syphilis and gonorrhea infections are largely confined to the urban areas of the state, while at least one case of chlamydia occurred in 92 of 105 counties. This distribution is also reflective of the national trends. The majority of reported syphilis comes from public clinics (64%), whereas chlamydia and gonorrhea infections are reported primarily from private physicians and clinics (70% and 52% respectively).

The number of reported Kansas AIDS cases remained fairly stable from 1996 through 1997. Although Kansas is a low-incidence state, its rate of increase or decrease in numbers mirrors that of the United States, but the distribution by transmission categories is different from the U.S. In Kansas, male-to-male sex continues to be the predominant mode of transmission among reported AIDS patients. There has not been an increase in AIDS cases among women or injection drug users in Kansas, as has been seen in some other parts of the U.S. The number of Kansas AIDS cases reported in 1997 with no known risk is higher (18%) than the cumulative percentage for no known risk (5%). Many of the 1997 cases will be reclassified into known risk categories after further investigation. It should be noticed that only cases of AIDS are reportable through confidential name reporting. Therefore the trends described here may not represent the risk of newly acquired HIV infection.

The number of reported tuberculosis (TB) cases in 1997 (78) showed a 7% increase from 1996 (73). The case rate for TB increased from 2.8 per 100,000 to 3.0 per 100,000, but remained well below the national average of 8.0 per 100,000. Thirty seven percent of the reported cases of TB occurred among individuals documented as being foreign born. While the

increase in the case rate for TB is a cause for concern, decreases in drug resistant TB is encouraging. Resistance to at least one drug decreased from 18% of all cases in 1996 to 8% in 1997. There were no reported cases of multi-drug resistant (i.e., resistance to both isoniazid and rifampin) in 1997, as compared to 2 reported cases of multi-drug resistance in 1996.

The number of elevated blood lead levels in children ≤ 72 months decreased in 1997 compared to 1996 (779 and 1,171 respectively). This decrease may be due to a reduction in the level of screening, screening of a greater proportion of low risk children by public providers, or an actual reduction in the incidence of elevated blood lead levels among Kansas children.

A sharp decrease in the number of reported cases of Lyme disease was noticed in 1997. This may be in part the result of a change in the case definition for Lyme disease, which now includes the presence of a positive confirmatory test.

Enteric infections (salmonellosis, shigellosis and giardiasis) continued to be reported in large numbers. Reports of *E. coli* O157:H7 declined during 1997. Fourteen foodborne and one non-food-related outbreaks of gastro-intestinal illness were reported and formally investigated by Office of Epidemiologic Services during the year. One of the food-related illness outbreaks was attributed to *Salmonella* serotypes infantis and anatum, another to *Shigella sonnei*, and no causative agent was positively identified in the remainder. The outbreak not related to food was attributed to *Shigella sonnei* and was due to person-to-person transmission.

Interpreting the data

When interpreting the data in this report it is important to remember that disease reporting is incomplete and often varies by disease. For example, reporting of AIDS cases is very good whereas reporting of chickenpox is poor. Absolute numbers are less meaningful than trends when interpreting the data. However, trends can be influenced by changes in case definitions or in reporting patterns. It is also important to note that since 59% (62/105) of counties in Kansas have populations less than 10,000, it is possible to have high rates of disease in these counties even if only very few cases are reported.

Acknowledgments

We would like to thank all the physicians, nurses, hospitals, laboratorians, county health department staff and others who participated in reportable disease surveillance during 1997. We would also like to acknowledge the Bureau of Disease Prevention and Health Promotion staff for their support.

Web sites

The Reportable Diseases in Kansas, annual summary, containing summaries of disease of public health importance, is now available at the KDHE home page. The address is: <http://www.ink.org/public/kdhe/oes.html>. Health education facts sheets and brochures address public health can be found at: <http://www.state.ks.us/public/kdhe/hef.html>.

SECTION I

DISEASE

SUMMARIES

AIDS

Number of cases - 145

Cases in 1996 - 135

% change from 1996 - plus 7%

Kansas rate - 5.6 per 100,000

U.S. rate (1996) - 25.2 per 100,000

Age of case-patients

Median - 36 years

Range - 20 to 91 years

Rate by sex

Female - 1.3 per 100,000

Male - 10.0 per 100,000

Rate by race

White - 4.5 per 100,000

Black - 15.8 per 100,000

Asian - 2.4 per 100,000

Native Am. - 13.1 per 100,000

Rate by ethnicity

Hispanic - 8.8 per 100,000

Non Hispanic - 5.5 per 100,000

Rate by geographic area

Urban - 8.3 per 100,000

Rural - 3.2 per 100,000

Cases by transmission categories

Men who have sex
with men (MSM) 83 (57%)

Injection drug
use (IDU) 12 (8%)

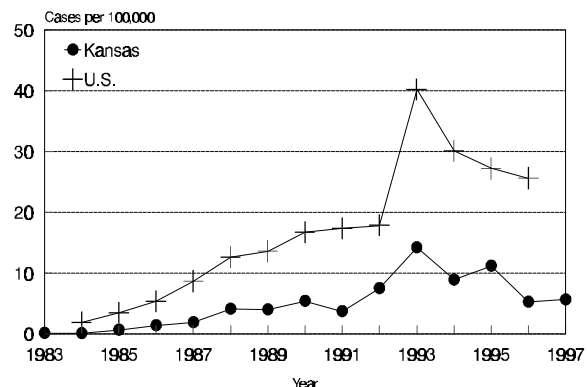
MSM & IDU 7 (5%)

Blood products 1 (1%)

Heterosexual 16 (11%)

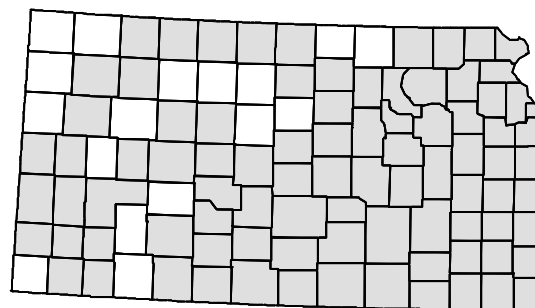
Risk not reported/
Other 26 (18%)

AIDS rate by year of report
Kansas, 1983-1997



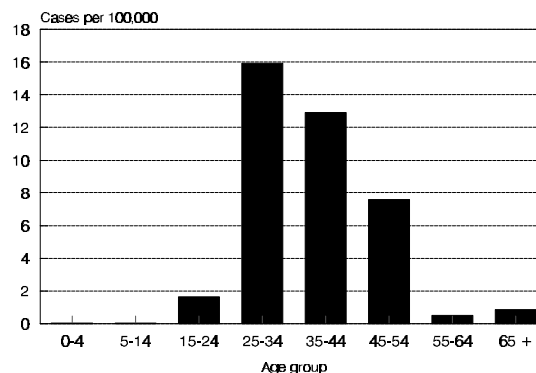
Comment: The introduction of a new case definition accounts for the large number of cases in 1993.

Counties affected by HIV/AIDS
Kansas, diagnosed 1981-1997



Shaded counties have reported or
treated at least one person with HIV or AIDS

AIDS rate by age group
Kansas, 1997



Amebiasis

Number of cases - 9

Cases in 1996 - 8

Kansas rate - 0.35 per 100,000

U.S. rate (1994) - 1.20 per 100,000

Age of case-patients

Median - 38 years

Range - 5 to 55 years

Cases by sex

Female - 4

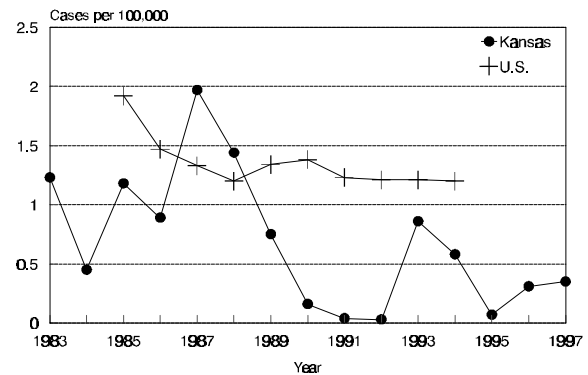
Male - 5

Cases by geographic area

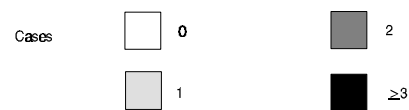
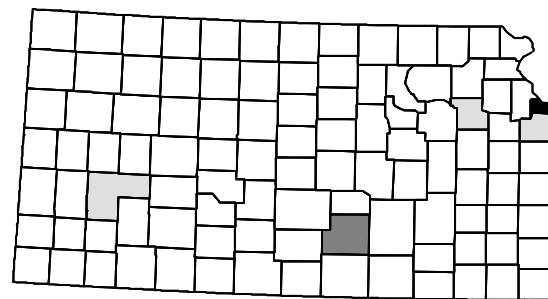
Urban - 8

Rural - 1

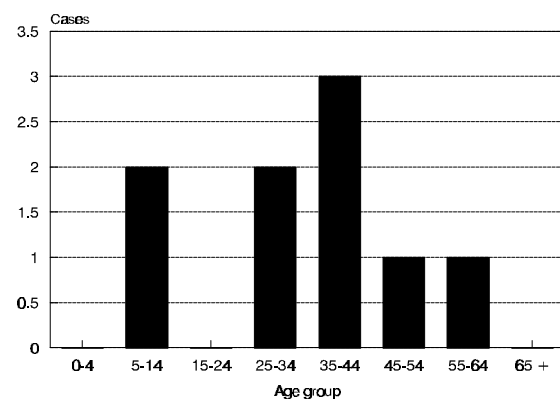
Amebiasis rate by year of report
Kansas, 1983-1997



Amebiasis cases by county
Kansas, 1997



Amebiasis cases by age group
Kansas, 1997



Campylobacteriosis

Number of cases - 200

Cases in 1996 - 208

% change from 1996 - minus 4%

Kansas rate - 7.8 per 100,000

U.S. rate - not available

Age of case-patients

Median - 34 years

Range - < 1 to 89 years

Rate by sex

Female - 6.8 per 100,000

Male - 8.5 per 100,000

Rate by race

White - 6.0 per 100,000

Black - 3.9 per 100,000

Asian - 4.8 per 100,000

Native Am. - 8.7 per 100,000

Rate by ethnicity

Hispanic - 6.4 per 100,000

Non Hispanic - 5.6 per 100,000

Rate by geographic area

Urban - 9.7 per 100,000

Rural - 5.9 per 100,000

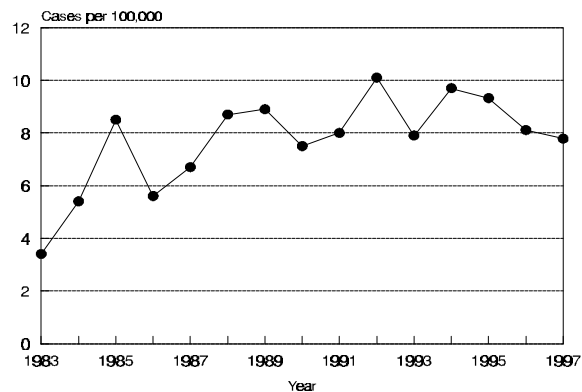
Species identified by state laboratory
(117 samples)

C. jejuni 104 (88%)

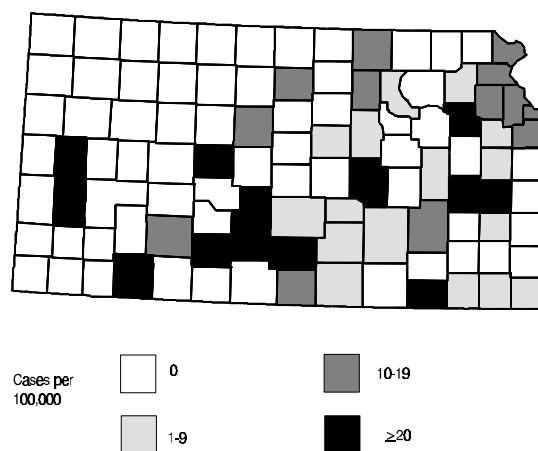
C. coli 10 (9%)

C. upsaliensis 3 (3%)

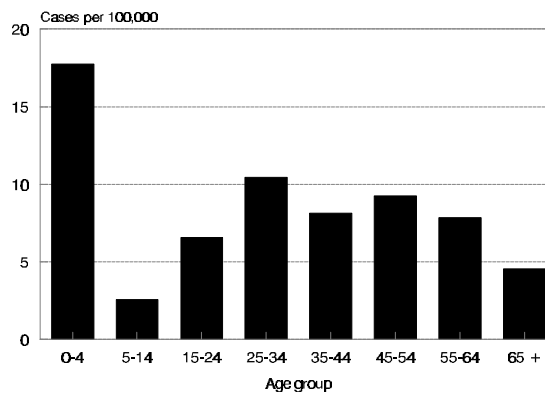
Campylobacteriosis rate by year
Kansas, 1983-1997



Campylobacteriosis rate by county
Kansas, 1997



Campylobacteriosis rate by age group
Kansas, 1997



Chlamydia

Number of cases - 4,698

Cases in 1996 - 4,448

% change from 1996 - plus 6%

Kansas rate - 182.6 per 100,000

U.S. rate (1996) - 188.1 per 100,000

Age of case-patients

Median - 20 years

Range - < 1 to 76 years

Rate by sex

Female - 298.9 per 100,000

Male - 62.8 per 100,000

Rate by race

White - 100.6 per 100,000

Black - 1,081.1 per 100,000

Asian - 129.5 per 100,000

Native Am. - 231.4 per 100,000

Rate by ethnicity

Hispanic - 426.1 per 100,000

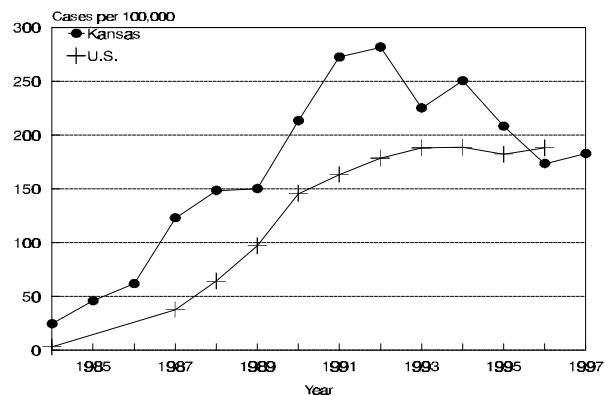
Non Hispanic - 170.2 per 100,000

Rate by geographic area

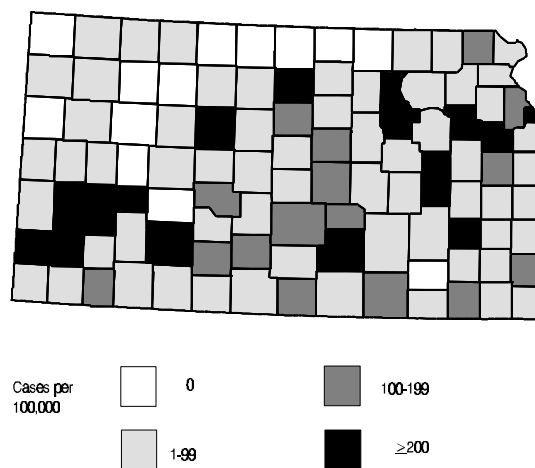
Urban - 235.6 per 100,000

Rural - 133.4 per 100,000

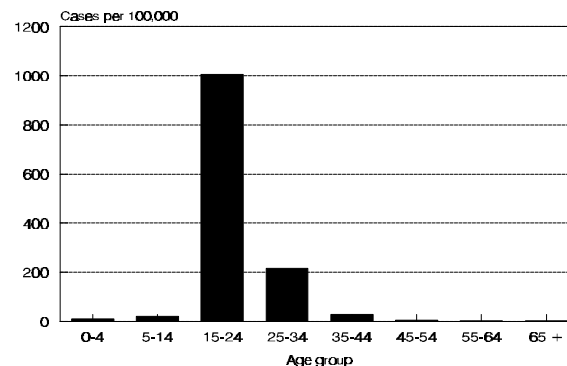
Chlamydia rate by year
Kansas, 1984-1997



Chlamydia rate by county
Kansas, 1997



Chlamydia rate by age group
Kansas, 1997



Cryptosporidiosis

Number of cases - 14

Cases in 1996 - 11

Kansas rate - 0.5 per 100,000

U.S. rate - not available

Age of case-patients

Median - 34 years

Range - < 1 to 51 years

Cases by sex

Female - 7

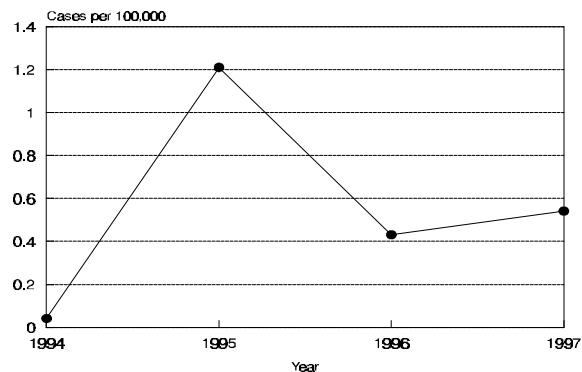
Male - 6

Cases by geographic area

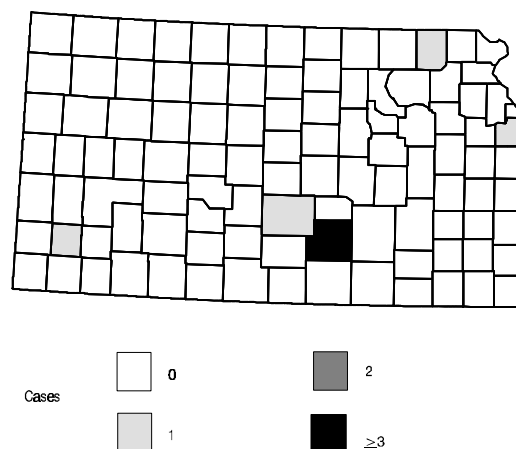
Urban - 11

Rural - 3

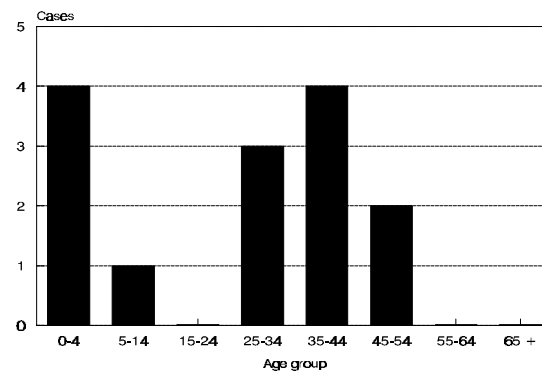
Cryptosporidiosis rate by year
Kansas, 1994-1997



Cryptosporidiosis cases by county
Kansas, 1997



Cryptosporidiosis cases by age group
Kansas, 1997



***E. coli* O157:H7**

Number of cases - 30

Cases in 1996 - 33

Kansas rate - 1.2 per 100,000

U.S. rate (1996) - 1.2 per 100,000

Age of case-patients

Median - 31 years

Range - 1 to 75 years

Cases by sex

Female - 17

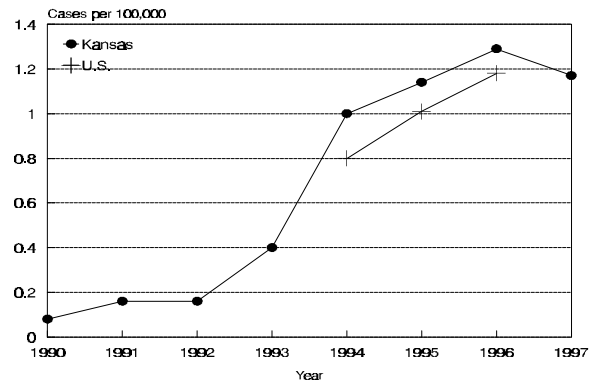
Male - 13

Cases by geographic area

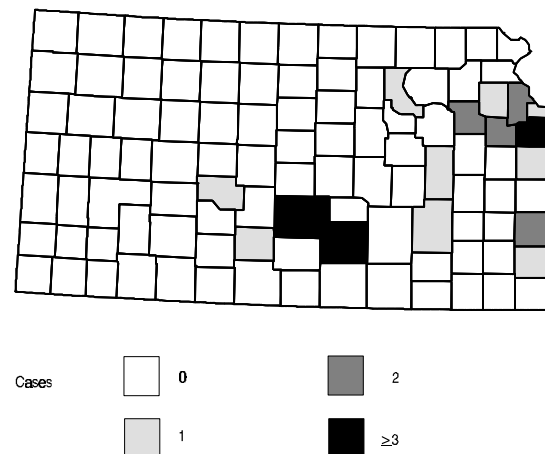
Urban - 14

Rural - 16

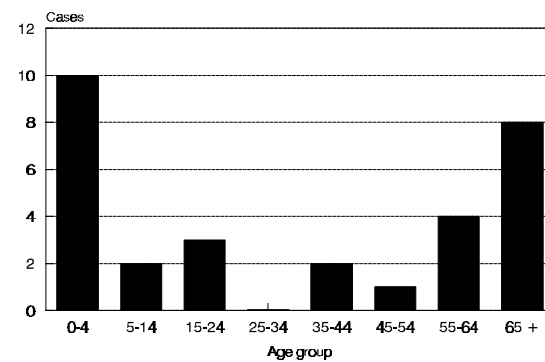
E. coli O157:H7 rate by year
Kansas, 1990-1997



E. coli O157:H7 cases by county
Kansas, 1997



E. coli O157:H7 cases by age group
Kansas, 1997



Primary Encephalitis

Number of cases - 2

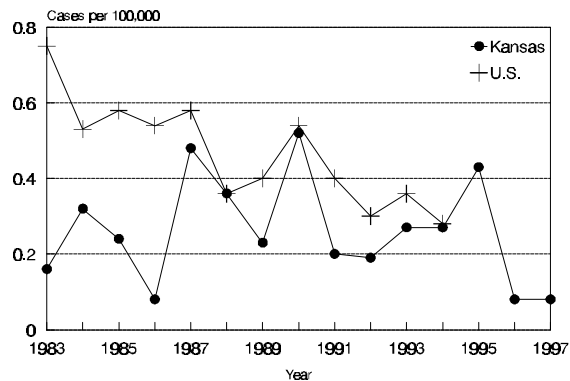
Cases in 1996 - 2

Kansas rate - 0.1 per 100,000

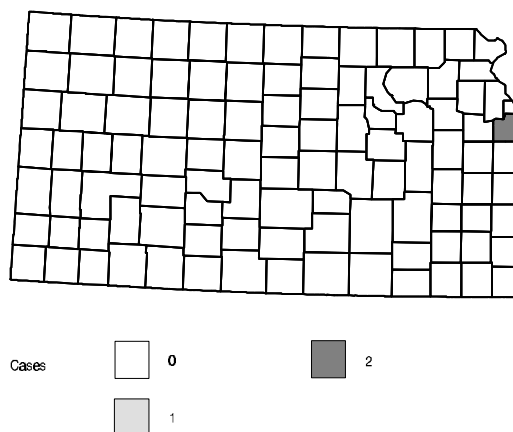
U.S. rate (1994) - 0.3 per 100,000

Median age of cases - 21 years

Primary Encephalitis rate by year
Kansas, 1983-1997



Primary Encephalitis cases by county
Kansas, 1997



Giardiasis

Number of cases - 230

Cases in 1996 - 237

% change from 1996 - minus 3 %

Kansas rate - 8.9 per 100,000

U.S. rate - not available

Age of case-patients

Median - 29 years

Range - < 1 to 92 years

Rate by sex

Female - 8.7 per 100,000

Male - 9.1 per 100,000

Rate by race

White - 5.9 per 100,000

Black - 8.5 per 100,000

Asian - 40.8 per 100,000

Native Am. - 8.7 per 100,000

Rate by ethnicity

Hispanic - 4.0 per 100,000

Non Hispanic - 6.0 per 100,000

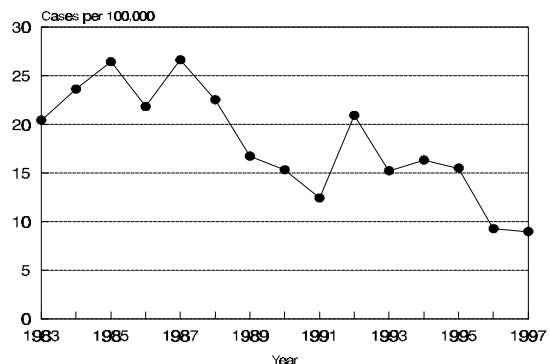
Rate by geographic area

Urban - 10.3 per 100,000

Rural - 7.7 per 100,000

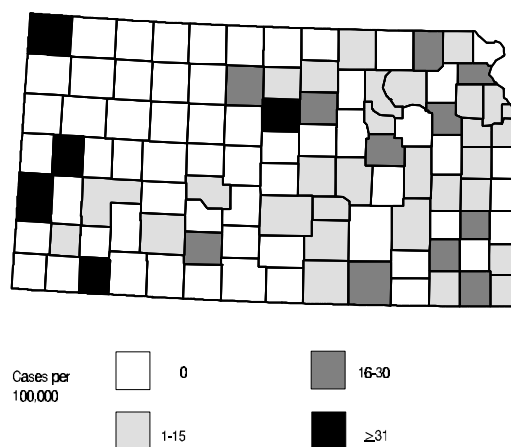
Giardiasis rate by year

Kansas, 1983-1997



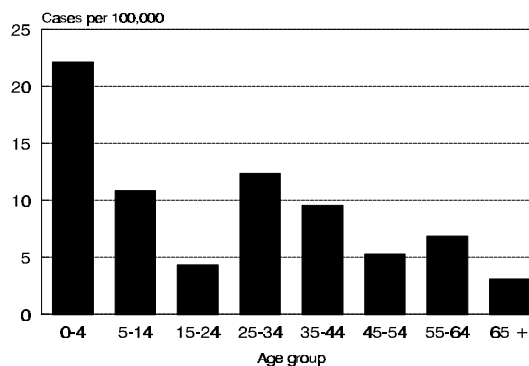
Giardiasis rate by county

Kansas, 1997



Giardiasis rate by age group

Kansas, 1997



Gonorrhea

Number of cases - 2,094

Cases in 1996 - 2,043

% change from 1996 - plus 3%

Kansas rate - 81.4 per 100,000

U.S. rate (1996) - 122.8 per 100,000

Age of case-patients

Median - 22 years

Range - < 1 to 75 years

Rate by sex

Female - 87.3 per 100,000

Male - 75.3 per 100,000

Rate by race

White - 22.9 per 100,000

Black - 908.9 per 100,000

Asian - 21.6 per 100,000

Native Am. - 74.2 per 100,000

Rate by ethnicity

Hispanic - 100.9 per 100,000

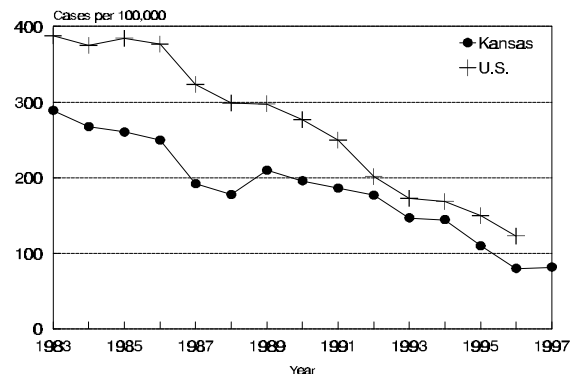
Non Hispanic - 80.4 per 100,000

Rate by geographic area

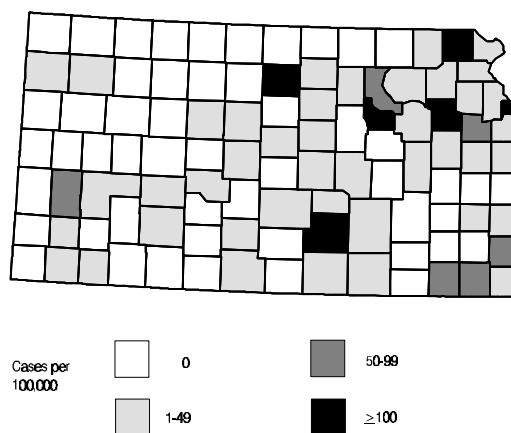
Urban - 136.6 per 100,000

Rural - 30.2 per 100,000

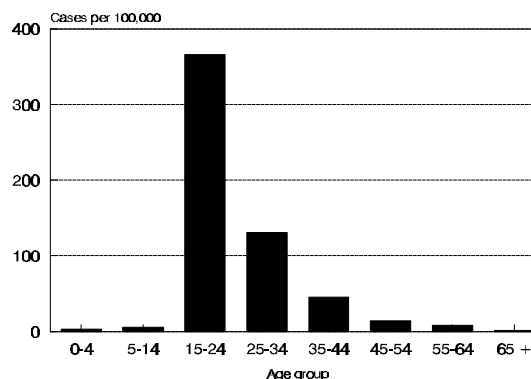
Gonorrhea rate by year
Kansas, 1983-1997



Gonorrhea rate by county
Kansas, 1997



Gonorrhea rate by age group
Kansas, 1997



Hantavirus Pulmonary Syndrome

Number of cases - 2

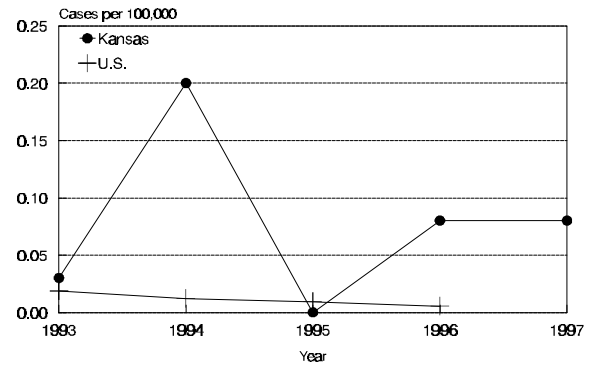
Cases in 1996 - 2

Kansas rate - 0.1 per 100,000

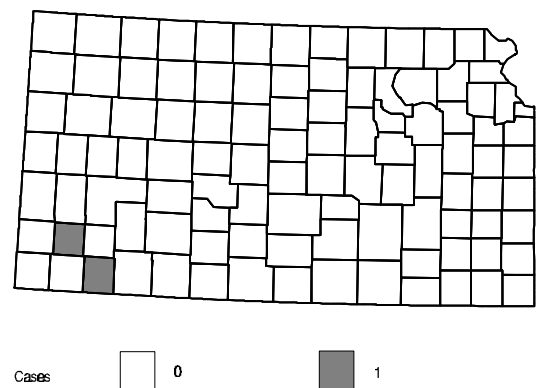
U.S. rate (1997) - < 0.1 per 100,000

Median age of cases - 43 years

Hantavirus rate by year
Kansas, 1993-1997



Hantavirus cases by county
Kansas, 1997



Hepatitis A

Number of cases - 262

Cases in 1996 - 393

% change from 1996 - minus 33%

Kansas rate - 10.2 per 100,000

U.S. rate (1996) - 11.7 per 100,000

Age of case-patients

Median - 26 years

Range - < 1 to 85 years

Rate by sex

Female - 9.7 per 100,000

Male - 10.4 per 100,000

Rate by race

White - 9.6 per 100,000

Black - 9.9 per 100,000

Asian - 4.8 per 100,000

Native Am. - 13.1 per 100,000

Rate by ethnicity

Hispanic - 8.8 per 100,000

Non Hispanic - 9.4 per 100,000

Rate by geographic area

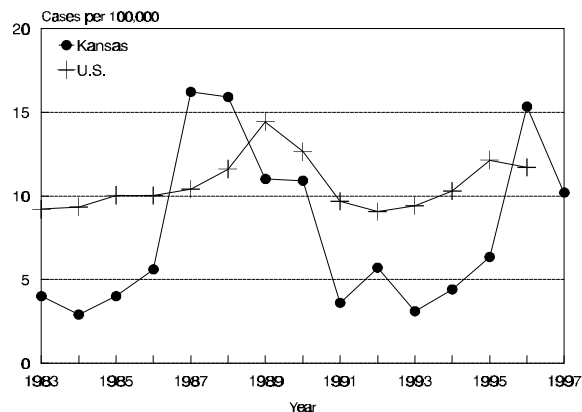
Urban - 9.2 per 100,000

Rural - 11.1 per 100,000

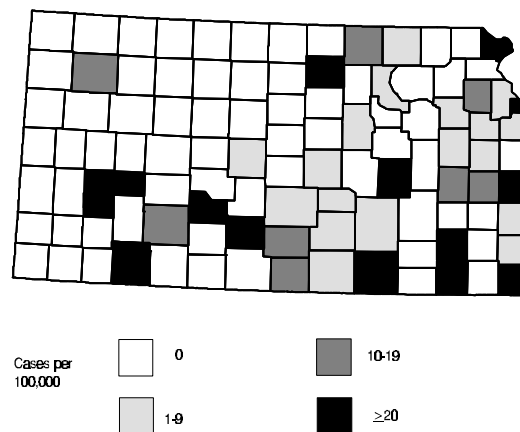
Risk factors: (during 2-6 weeks prior to illness)

Contact of hepatitis A case	107 (41%)
Foreign travel	17 (6 %)

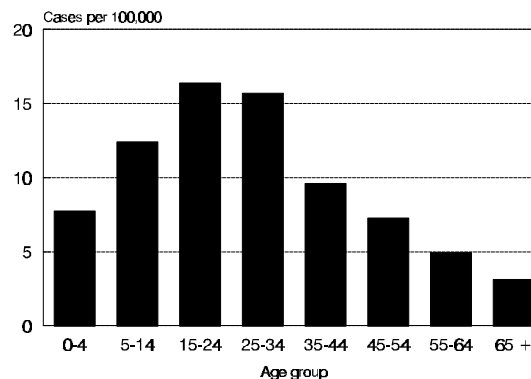
Hepatitis A rate by year
Kansas, 1983-1997



Hepatitis A rate by county
Kansas, 1997



Hepatitis A rate by age group
Kansas, 1997



Hepatitis B

Number of cases - 32

Cases in 1996 - 32

Kansas rate - 1.2 per 100,000

U.S. rate (1996) - 4.0 per 100,000

Age of case-patients

Median - 36 years

Range - < 1 to 88 years

Cases by sex

Female - 14

Male - 18

Cases by geographic area

Urban -14

Rural -18

Risk factors

(6 weeks - 6 months prior to illness)

Contact of hepatitis B case	5 (16%)
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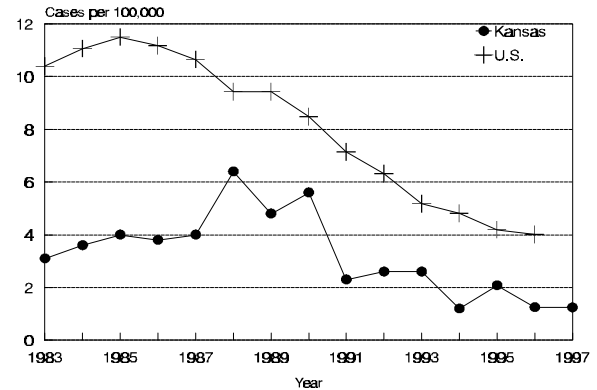
≥ 2 sexual partners	22 (71%)
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Tattoo	4 (13%)
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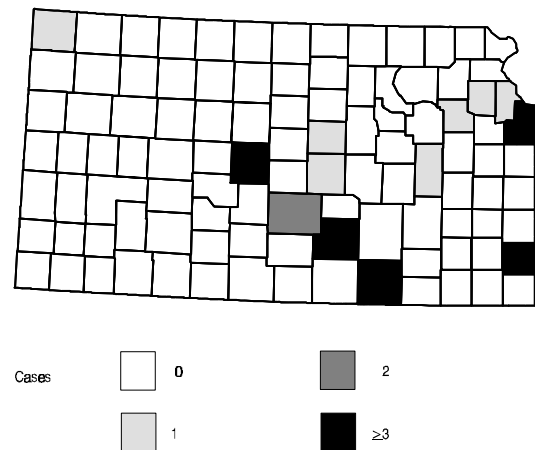
Injection drug use	2 (6%)
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Comment: Only acute cases are reported.

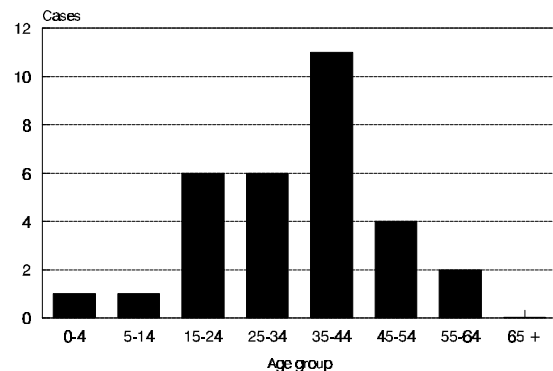
Hepatitis B rate by year
Kansas, 1983-1997



Hepatitis B cases by county
Kansas, 1997



Hepatitis B cases by age group
Kansas, 1997



Hepatitis C/non-A, non-B

Number of cases - 13

Cases in 1996 - 16

Kansas rate - 0.5 per 100,000

U.S. rate (1996) - 1.4 per 100,000

Age of case-patients

Median - 39 years

Range - 27 to 68 years

Cases by sex

Female - 9

Male - 4

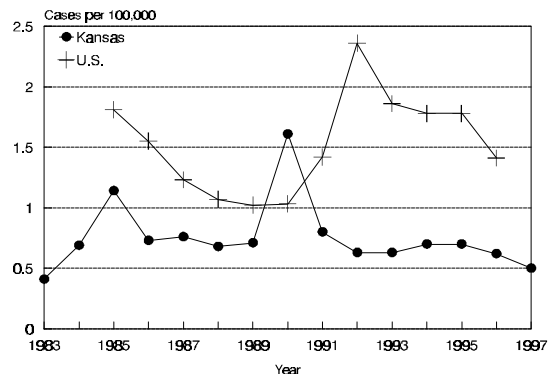
Cases by geographic area

Urban - 5

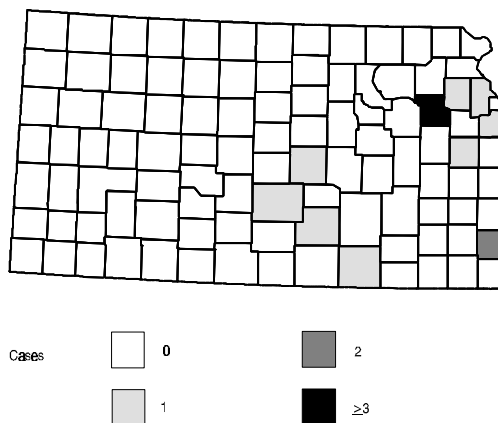
Rural - 8

Comment: Only acute cases are reported.

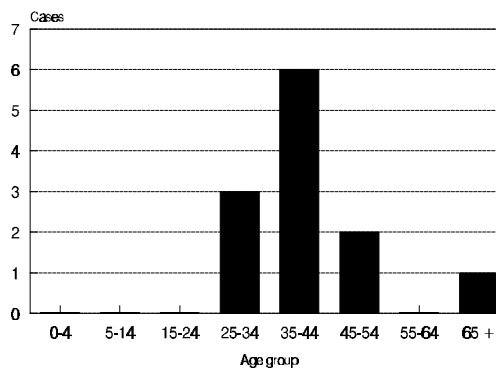
Hepatitis C/non-A, non-B rate by year of report
Kansas, 1983-1997



Hepatitis C/non-A, non-B cases by county
Kansas, 1997



Hepatitis C/non-A, non-B cases by age group
Kansas, 1997



Influenza

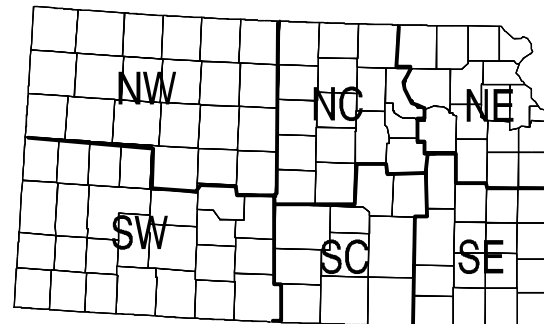
Specimen submissions* for influenza

Analyzed for influenza	100
Influenza A (+)	35
Typed (all H3N2)	21
Fluorescent antibody (+)	14
Influenza B (+)	4
Influenza (-)	50
Other virus	9
Adenovirus	5
Herpes simplex virus	3
Parainfluenza	1
Unsatisfactory	2

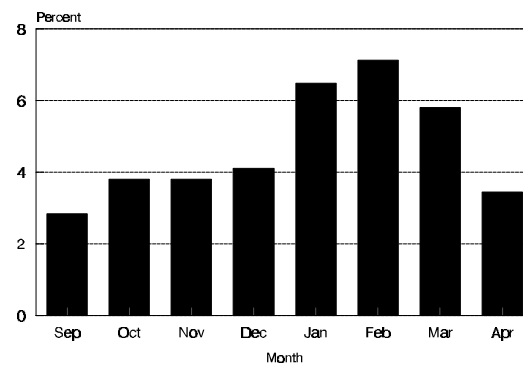
Age group	Specimens	Pos A	Pos B	
< 12	24		15	0
12 - 19	15	5	0	
20 - 39	35	8	2	
> 39	26	7	2	
Total	100	35	4	

Geographic Area (Spec. analyzed)	Pos A	Pos B
NE (53)	13	2
NC (11)	1	0
NW (1)	0	0
SE (6)	1	0
SC (28)	20	2
SW (1)	0	0
Total (100)	35	4

Geographic regions in Kansas



Percent of deaths due to pneumonia and influenza, September, 1997 - April, 1998, Kansas



Total deaths (September, 1997 - April, 1998) = 15,685

Comment: The trends observed in Kansas were reflected in much of the U.S., with increasing flu-like activity occurring in early December and peaking during late January and early February, 1998.

During the 1997/1998 flu season, January showed the highest percentage of deaths due to pneumonia and influenza. Over 95% of deaths due to pneumonia/influenza during this period were among people aged 65 and over.

* Only results from specimens submitted to the Kansas Health and Environment Laboratory are presented.

Pediatric Lead Poisoning

Number of cases - 779

Cases in 1996 - 1,171

% change from 1996 - minus 33%

Kansas rate - 305.2 per 100,000
children age ≤ 6 years old

U.S. rate - not available

Age of case-patients

Median - 28 months

Range - 0 to 72 months

Rate by sex

Female - 264.1 per 100,000

Male - 336.5 per 100,000

Rate by race - not available

Rate by ethnicity - not available

Rate by geographic area

Urban - 239.4 per 100,000

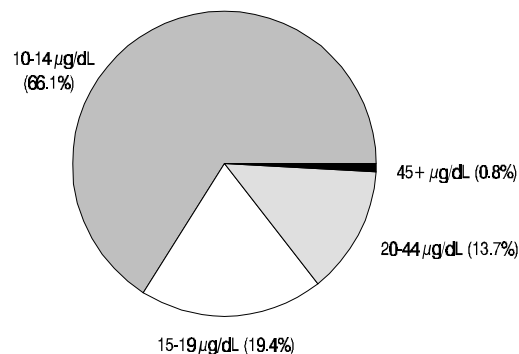
Rural - 366.5 per 100,000

Comment: Pediatric lead poisoning was defined as a blood lead level ≥ 10 $\mu\text{g}/\text{dL}$.

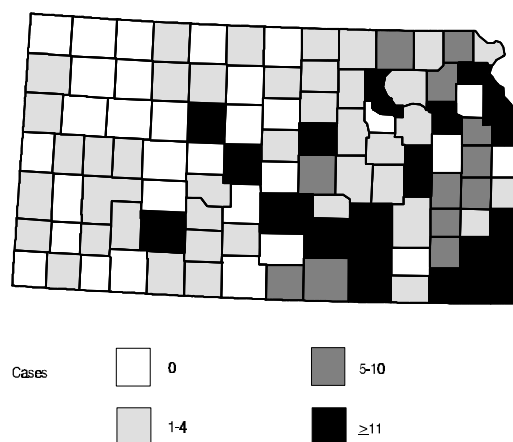
Results were received from both private and public laboratories. Only elevated results are reported by private laboratories.

Differences in number of cases by geographic area may be attributable to variations in screening practices.

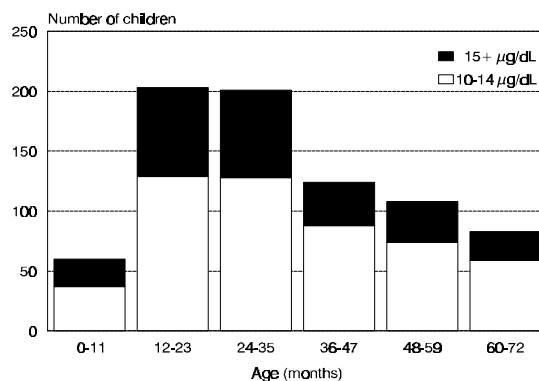
Positive Blood lead results for children 0 to 72 months
Kansas, 1997



Pediatric lead poisoning cases by county
Kansas, 1997



Pediatric lead poisoning by age group
Kansas, 1997



Legionellosis

Number of cases - 7

Cases in 1996 - 6

Kansas rate - 0.3 per 100,000

U.S. rate (1996) - 0.5 per 100,000

Age of case-patients

Median - 73 years

Range - 33 to 90 years

Cases by sex

Female - 4

Male - 3

Cases by geographic area

Urban - 3

Rural - 4

Underlying Condition at date of onset

Cancer	1 (14%)
--------	---------

Transplant	0 (0%)
------------	---------

Renal dialysis	0 (0%)
----------------	---------

Systemic

Corticosteroids	0 (0%)
-----------------	---------

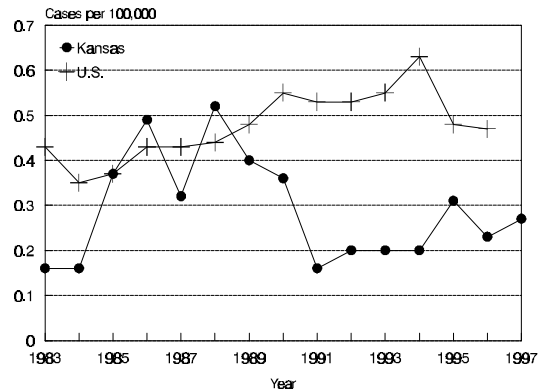
Other immuno-

suppressants	0 (0%)
--------------	---------

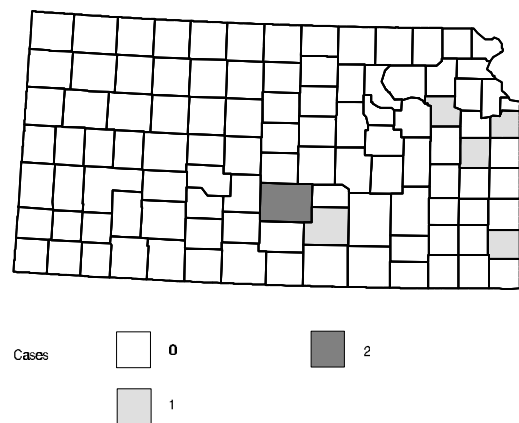
Diabetes	2 (29%)
----------	---------

Smoker	2 (29%)
--------	---------

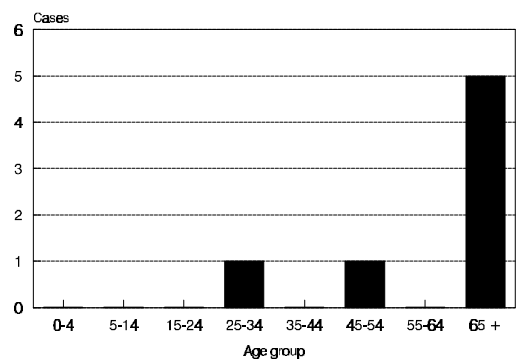
Legionellosis rate by year
Kansas, 1983-1997



Legionellosis cases by county
Kansas, 1997



Legionellosis cases by age group
Kansas, 1997



Lyme Disease

Number of cases - 4

Cases in 1996 - 36

Kansas rate - 0.2 per 100,000

U.S. rate(1996) - 6.2 per 100,000

Median age of cases - 24 years

Cases by sex

Female - 2

Male - 2

Cases by geographic area

Urban - 0

Rural - 4

Site of likely exposure

Kansas 2 (50%)

Out of state 2 (50%)

Clinical characteristics

Erythema migrans 4 (100%)

Rheumatic signs 1 (25%)

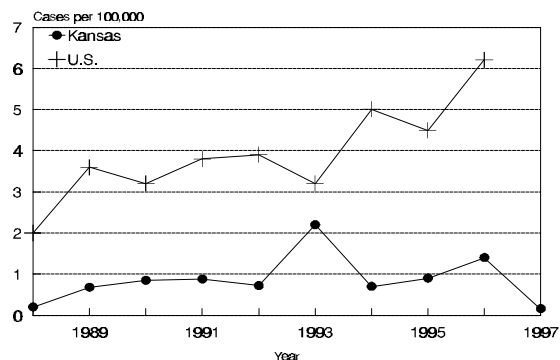
Neurologic signs 0 (0%)

Cardiac signs 0 (0%)

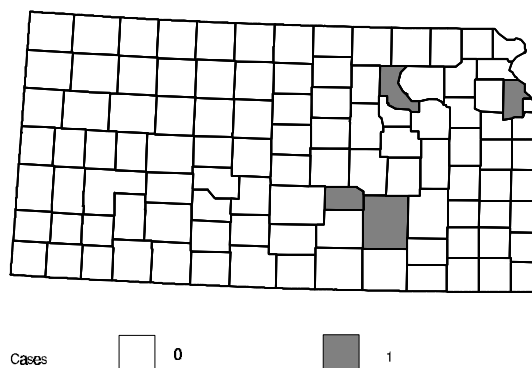
Comment: The spirochete (*Borrelia burgdorferi*) that causes Lyme disease has not yet been isolated by culture in Kansas.

The surveillance definition for Lyme disease was revised in September 1996 and now requires a confirmatory test.

Lyme disease rate by year
Kansas, 1988-1997







Lyme disease cases by county
Kansas, 1997



Malaria

Chloroquine 1

Cases

	0		2
	1		≥ 3

Aseptic Meningitis

Number of cases - 43

Cases in 1996 - 39

Kansas rate - 1.7 per 100,000

U.S. rate (1994) - 3.7 per 100,000

Age of case-patients

Median - 29 years

Range - < 1 to 77 years

Cases by sex

Female - 20

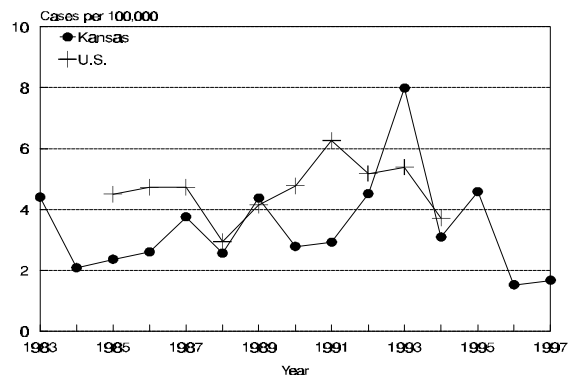
Male - 23

Cases by geographic area

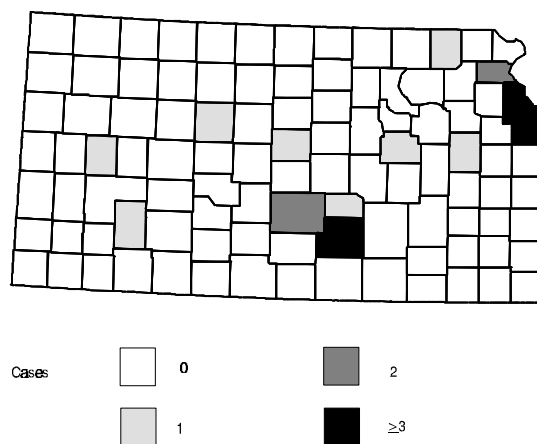
Urban - 28

Rural - 15

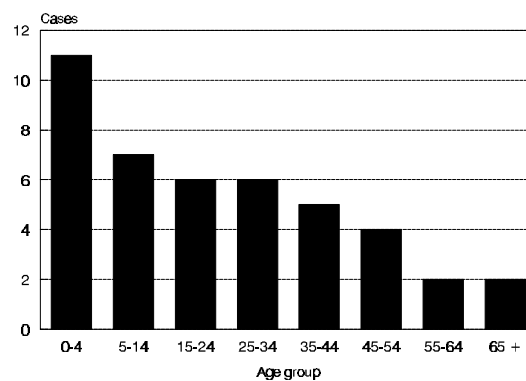
Aseptic Meningitis rate by year of report
Kansas, 1983-1997



Aseptic meningitis cases by county
Kansas, 1997



Aseptic Meningitis cases by age group
Kansas, 1997



Meningococcal Disease

Number of cases - 26

Cases in 1996 - 27

Kansas rate - 1.0 per 100,000

U.S. rate (1996) - 1.3 per 100,000

Age of case-patients

Median - 19 years

Range - < 1 to 83 years

Cases by sex

Female - 10

Male - 16

Cases by geographic area

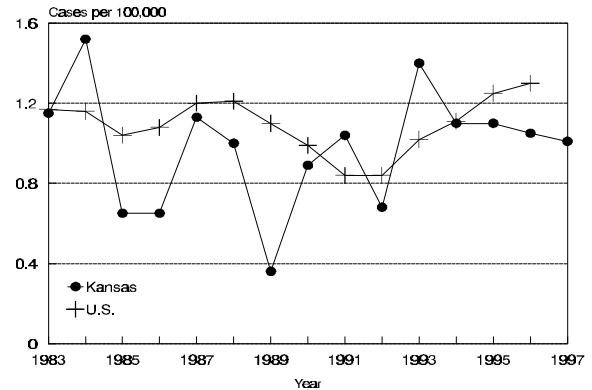
Urban - 11

Rural - 15

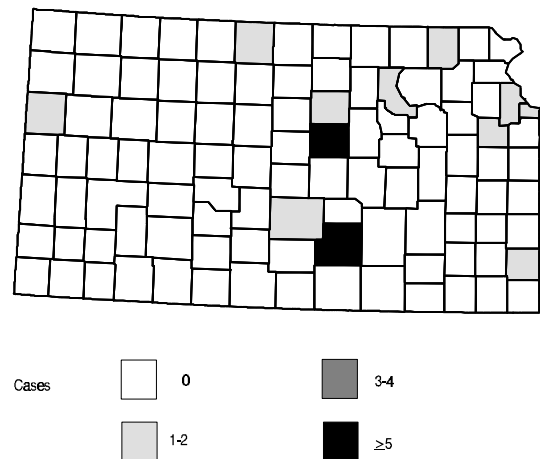
Serogroup (7 samples)

B	2 (29%)
C	4 (57%)
Y	1 (14%)

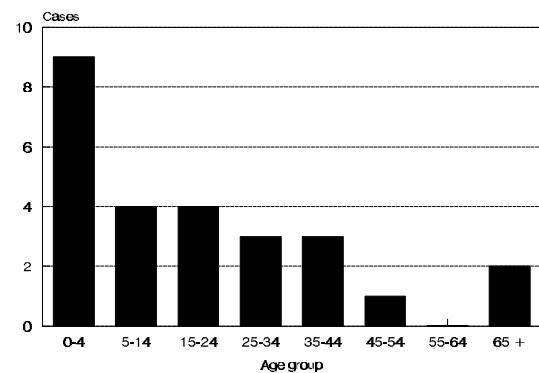
Meningococcal disease rate by year
Kansas, 1983-1997



Meningococcal cases by county
Kansas, 1997



Meningococcal disease cases by age group
Kansas, 1997



Mumps

Number of cases - 1

Cases in 1996 - 2

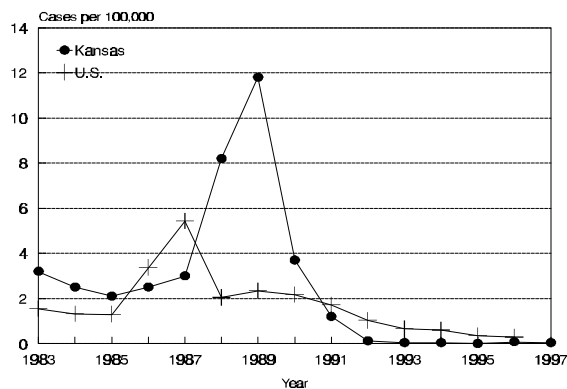
Kansas rate - < 0.1 per 100,000

U.S. rate (1996) - 0.3 per 100,000

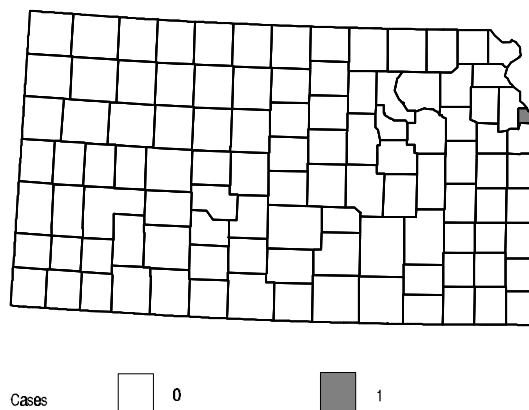
Comment: Case history shows no documented doses of MMR.

Children are to be immunized against mumps at 12-15 months of age using the triple antigen vaccine (measles-mumps-rubella).

Mumps rate by year
Kansas, 1983-1997



Mumps cases by county
Kansas, 1997



Pertussis

Number of cases - 33

Cases in 1996 - 14

Kansas rate - 1.3 per 100,000

U.S. rate (1996) - 2.9 per 100,000

Age of case-patients

Median - < 1 year

Range - < 1 to 43 years

Cases by sex

Female - 14

Male - 19

Cases by geographic area

Urban - 23

Rural - 10

Vaccination status of cases

No history of vaccine 8 (24%)

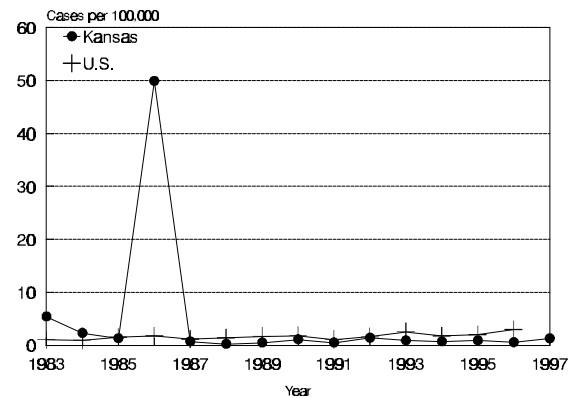
Too young for vaccine (< 2 mo.) 7 (21%)

Vaccinated, but not up-to-date 4 (12%)

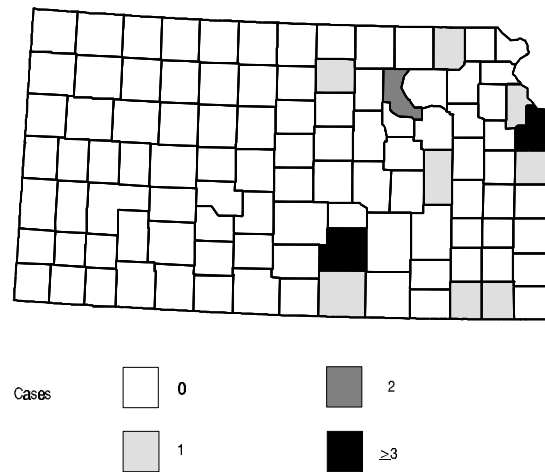
Up-to-date 8 (24%)

Unknown 6 (18%)

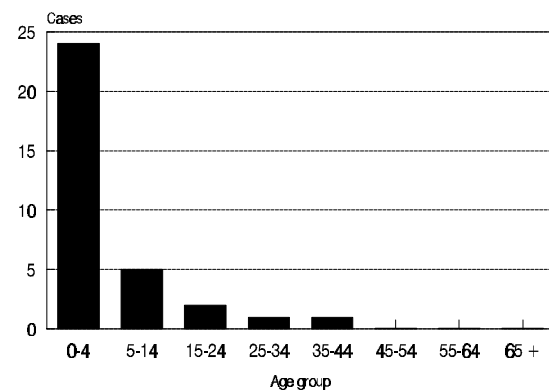
Pertussis rate by year
Kansas, 1983-1997



Pertussis cases by county
Kansas, 1997



Pertussis cases by age group
Kansas, 1997



Rabies, Animal

Number of cases - 89

Cases in 1996 - 37

Number of counties reporting
rabid animals - 25 (24%)

Types of rabid animals

Wild 72 (81%)

Domestic 17 (19%)

Pets 9

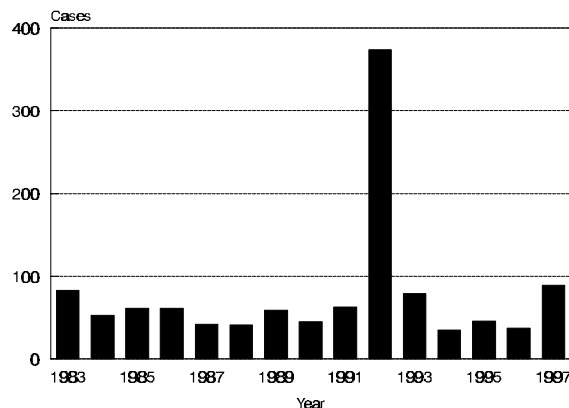
Livestock 8

Rabies was not found in the following species
tested in Kansas during the past 6 years (1991-
1997):

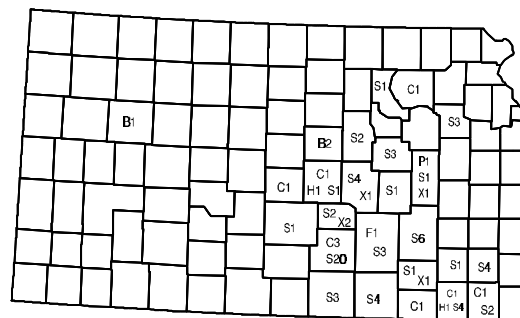
Antelope, Baboon, Badger, Beaver, Bison,
Chipmunk, Coati, Cougar, Deer, Donkey,
Ferret, G. Squirrel, Gerbil, Goat, Gopher,
Groundhog, Guinea Pig, Hamster, Hedgehog,
Human, Lion, Llama, Mink, Mole, Mouse,
Muskrat, Opossum, Pig, Porcine, Porcupine,
Prairie Dog, Primate, Pronghorn, Rabbit, Rat,
Ringtail, Rodent, Sheep, Squirrel, Tiger,
Weasel, Wolf, Woodchuck, Other rodents/
lagomorphs.

Comment: The last human case of rabies
in Kansas occurred in Montgomery
County in 1968.

Animal rabies by year
Kansas, 1983-1997



Animal rabies by species and county
Kansas, 1997



Rabid animals by species
Kansas, 1997

Species	Number Tested	Number Positive	Percent Positive
Bat	60	3	5
Cat	649	9	1.4
Cow	53	5	9.4
Fox	8	1	14.3
Horse	24	2	8.3
Sheep	6	1	16.7
Skunk	141	68	48.2

Rocky Mountain Spotted Fever

Number of cases - 7

Cases in 1996 - 2

Kansas rate - 0.3 per 100,000

U.S. rate (1996) - 0.3 per 100,000

Age of case-patients

Median - 34 years

Range - 3 to 65 years

Cases by sex

Female - 3

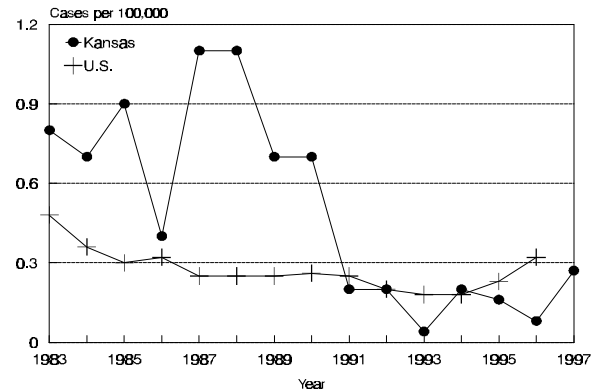
Male - 4

Cases by geographic area

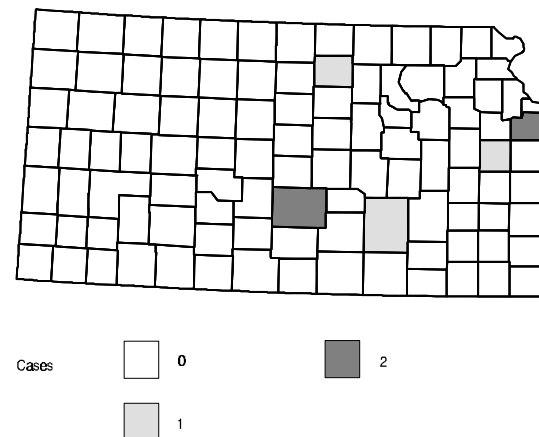
Urban - 2

Rural - 5

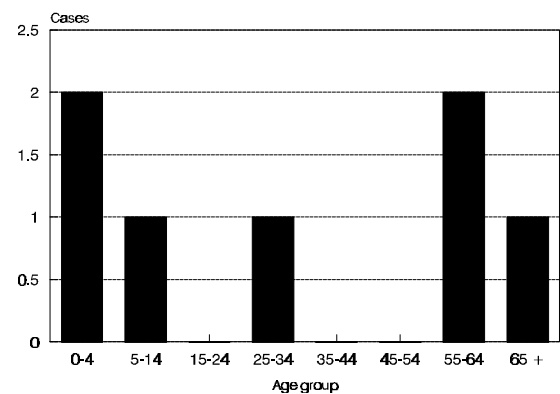
Rocky Mountain Spotted Fever rate
by year - Kansas, 1983-1997



Rocky Mountain Spotted Fever cases by
county - Kansas, 1997



Rocky Mountain Spotted cases
by age group - Kansas, 1997



Salmonellosis (non-typhoidal)

Number of cases - 446

Cases in 1996 - 419

% change from 1996 - plus 6 %

Kansas rate - 17.3 per 100,000

U.S. rate (1996) - 17.2 per 100,000

Age of case-patients

Median - 26 years

Range - < 1 to 93 years

Rate by sex

Female - 19.1 per 100,000

Male - 15.1 per 100,000

Rate by race

White - 12.2 per 100,000

Black - 12.5 per 100,000

Asian - 12.0 per 100,000

Native Am. - 17.5 per 100,000

Rate by ethnicity

Hispanic - 10.4 per 100,000

Non Hispanic - 11.0 per 100,000

Rate by geographic area

Urban - 21.5 per 100,000

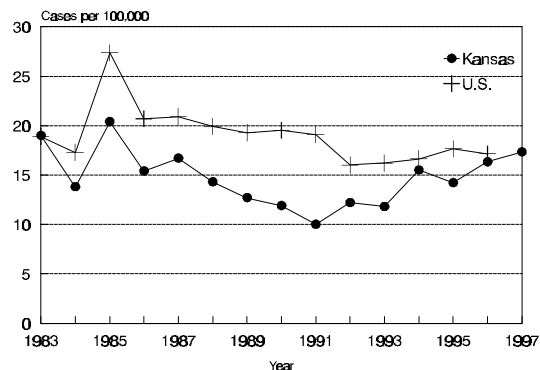
Rural - 13.2 per 100,000

Serotypes identified by state laboratory
(355 samples)

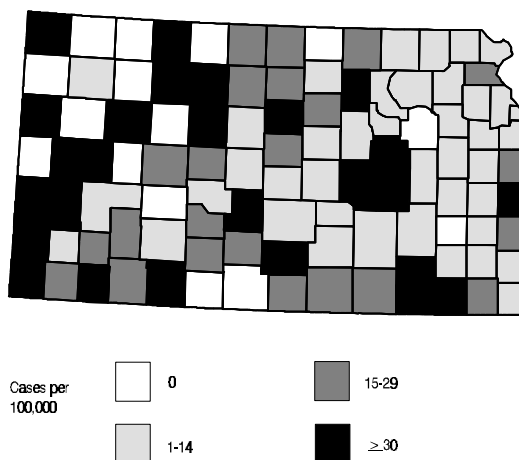
<i>S. typhimurium</i>	85 (24%)
<i>S. infantis</i>	64 (18%)
<i>S. enteritidis</i>	36 (10%)
<i>S. newport</i>	22 (6%)
<i>S. agona</i>	19 (5%)
<i>S. anatum</i>	16 (5%)
<i>S. heidelberg</i>	12 (4%)
<i>S. braenderup</i>	8 (2%)
<i>S. saint paul</i>	8 (2%)
Other	85 (24%)

Comment: An outbreak of *S. infantis* and *S. anatum* accounted for 23% of all cases of salmonella reported.

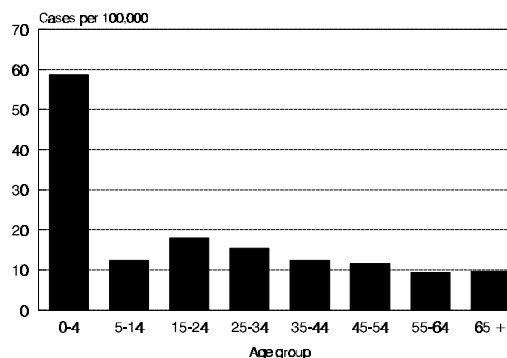
Salmonellosis rate by year
Kansas, 1983-1997

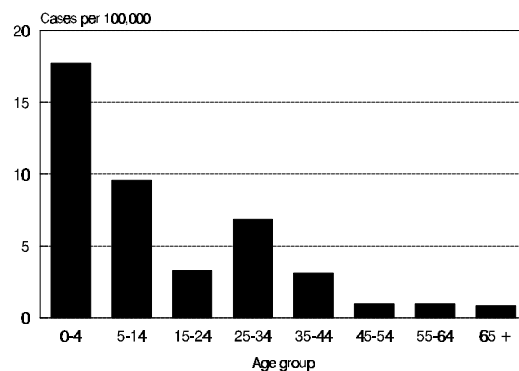


Salmonellosis rate by county
Kansas, 1997



Salmonellosis rate by age group
Kansas, 1997





Syphilis, Primary and Secondary

Number of cases - 32

Cases in 1996 - 28

Kansas rate - 1.2 per 100,000

U.S. rate (1996) - 4.3 per 100,000

Age of case-patients

Median - 35 years

Range - 16 to 57 years

Cases by sex

Female - 13

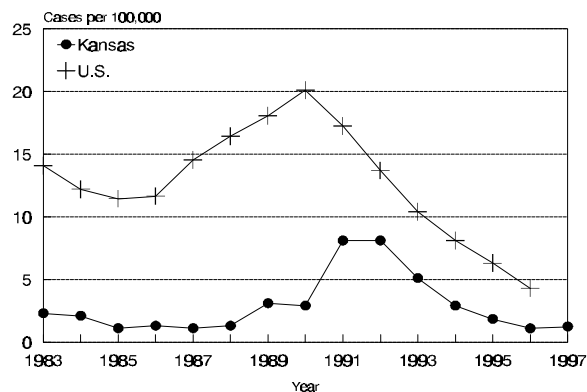
Male - 19

Cases by geographic area

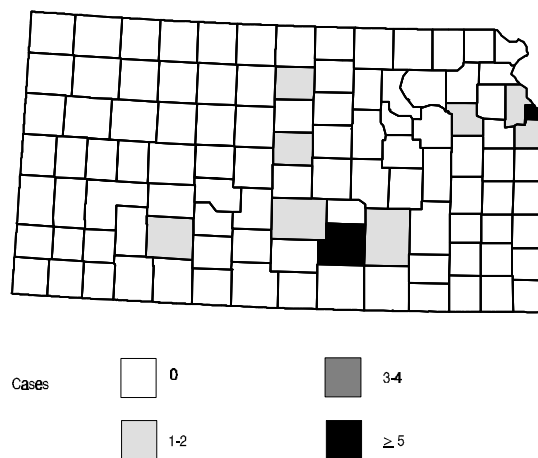
Urban - 24

Rural - 8

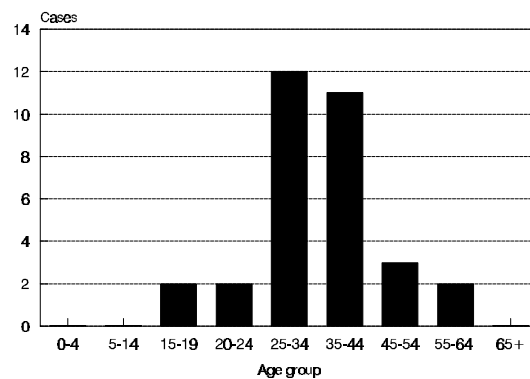
Primary and secondary syphilis rate
by year - Kansas, 1983-1997



Primary and secondary syphilis cases by county
Kansas, 1997



Primary and secondary syphilis cases
by age group - Kansas, 1997



Tuberculosis

Number of cases - 78

Cases in 1996 - 73

% change from 1996 - plus 7%

Kansas rate - 3.0 per 100,000

U.S. rate (1996) - 8.0 per 100,000

Age of case-patients

Median - 45 years

Range - < 1 to 100 years

Rate by sex

Female - 2.5 per 100,000

Male - 3.6 per 100,000

Rate by race

White - 2.2 per 100,000

Black - 9.9 per 100,000

Asian - 28.8 per 100,000

Rate by ethnicity

Hispanic - 12.0 per 100,000

Non Hispanic - 2.6 per 100,000

Rate by geographic area

Urban - 4.0 per 100,000

Rural - 2.2 per 100,000

Cases who are foreign born - 29 (37%)

Site of infection

Pulmonary 72 (92%)

Extra-pulmonary 6 (8%)

Drug resistance

(61 samples)

No drug resistance 57 (92%)

Isoniazid (INH) 1 (2%)

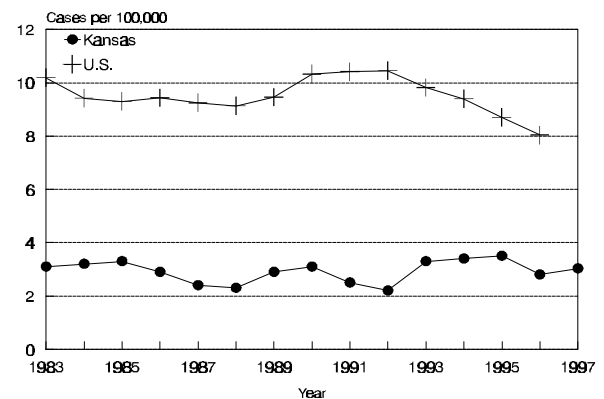
Streptomycin (SM) 1 (2%)

Ethambutol (EMB) 1 (2%)

INH & SM 1 (2%)

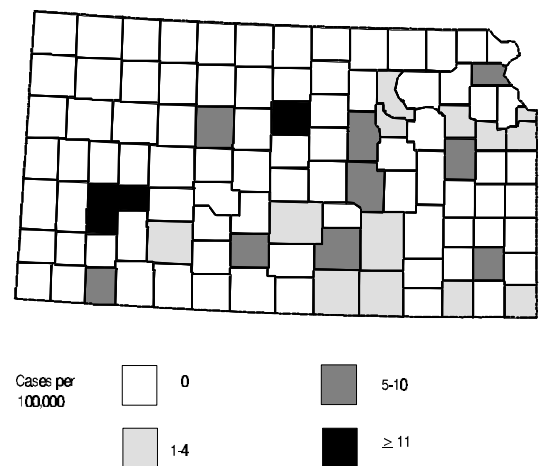
Tuberculosis rate by year

Kansas, 1983-1997



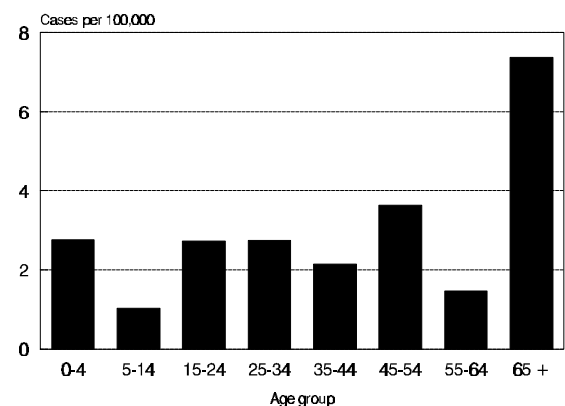
Tuberculosis rate by county

Kansas, 1997



Tuberculosis rate by age group

Kansas, 1997



Tularemia

Number of cases - 4

Cases in 1996 - 3

Kansas rate - 0.2 per 100,000

U.S. rate (1994) - < 0.1 per 100,000

Median age of cases - 11 years

Cases by sex

Female - 1

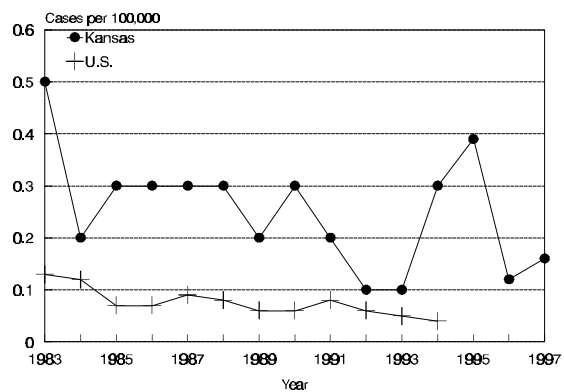
Male - 3

Cases by geographic area

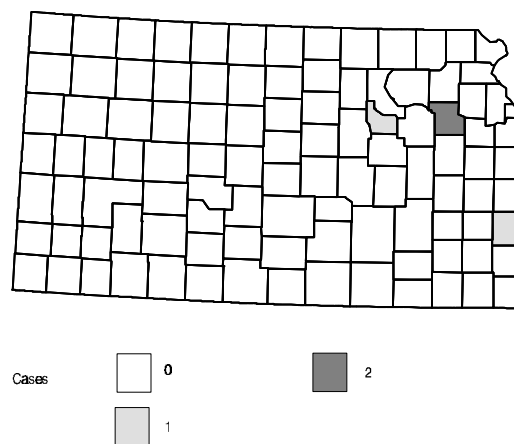
Urban - 2

Rural - 2

Tularemia rate by year
Kansas, 1983-1997



Tularemia cases by county
Kansas, 1996



Typhoid fever

Number of cases - 2

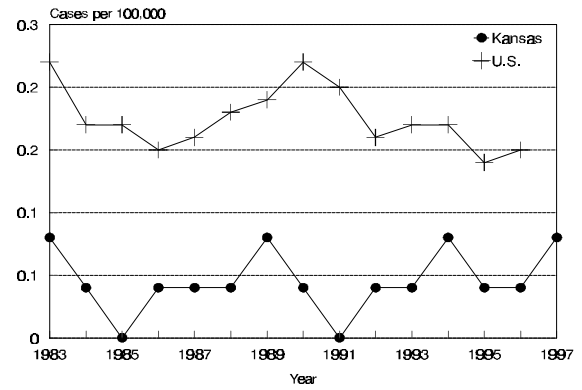
Cases in 1996 - 1

Kansas rate - 0.1 per 100,000

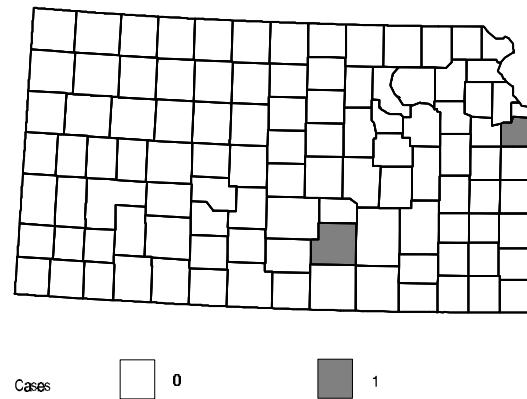
U.S. rate (1996) - 0.2 per 100,000

Median age of patients - 48 years

Typhoid fever rate by year of report
Kansas, 1983-1997



Typhoid fever cases by county
Kansas, 1997



No cases of the following diseases were reported in 1997.

Anthrax

Botulism

Brucellosis

Chancroid

Cholera

Diphtheria

Granuloma inguinale

Leprosy (Hansen's disease)

Leptospirosis

Lymphogranuloma venereum

Measles (rubeola)

Plague

Poliomyelitis

Rabies, human

Rheumatic fever

Rubella, including congenital rubella syndrome

Tetanus

Trichinosis

Yellow Fever

SECTION II

TABLES

Table 1. List of reportable diseases in Kansas, 1997

Reportable by physicians, dentists, physician's assistants, social workers, teachers and school administrators (K.A.R. 28-1-2 effective April 19, 1993 and 28-1-22 effective December 24, 1990)

- Acquired Immune Deficiency Syndrome (AIDS)
- Amebiasis
- Anthrax
- Botulism
- Brucellosis
- Campylobacter infections
- Chancroid
- Chickenpox (varicella)
- Chlamydia, including psittacosis
- Cholera
- Diphtheria
- Encephalitis, infectious (indicate infectious agent whenever possible)
- Giardiasis
- Gonorrhea
- Granuloma inguinale
- Hepatitis, viral
- Human Immunodeficiency Virus (HIV) - reportable by physicians only
- Legionellosis
- Leprosy (Hansen's disease)
- Leptospirosis
- Lyme disease
- Lymphogranuloma venereum
- Malaria
- Measles (rubeola)
- Meningitis
- Mumps
- Pertussis (whooping cough)
- Plague
- Poliomyelitis
- Rabies, human and animal
- Rheumatic fever
- Rocky Mountain Spotted Fever
- Rubella, including congenital rubella syndrome
- Salmonellosis, including typhoid fever
- Shigellosis
- Syphilis, including congenital syphilis
- Tetanus

Trichinosis
Tuberculosis
Tularemia
Yellow Fever

Reportable by laboratories (K.A.R. 28-1-18 effective August 16, 1993 and 28-1-22 effective December 24, 1990)

Blood lead level $\geq 10 \mu\text{g/dL}$ for persons < 18 years of age, and $\geq 25\mu\text{g/dL}$ for persons ≥ 18 years of age
CD4+ T-lymphocyte count of less than 200/ml or a CD4+ T-lymphocyte percent of total lymphocytes less than 14
Chlamydia
Cryptosporidium
E. coli O152:H7
Gonorrhea
Human Immunodeficiency Virus (HIV)
Syphilis
Tuberculosis

Reportable by hospitals (K.A.R. 28-1-4 effective May 1, 1986 and 28-1-22 effective December 24, 1990)

Acquired Immune Deficiency Syndrome (AIDS)
Cancer
Congenital malformations in infants under one year of age
Fetal alcohol syndrome

**Comment: Reporting requirements have changed in 1998 and all diseases reportable by physicians are now reportable also by laboratories and hospitals.
For more information please call 785 - 296 - 2951.**

Table 2. County abbreviations

AL	Allen	HG	Hodgeman	RH	Rush
AN	Anderson	JA	Jackson	RS	Russell
AT	Atchison	JF	Jefferson	SA	Saline
BA	Barber	JW	Jewell	SC	Scott
BT	Barton	JO	Johnson	SG	Sedgwick
BB	Bourbon	KE	Kearny	SW	Seward
BR	Brown	KM	Kingman	SN	Shawnee
BU	Butler	KW	Kiowa	SD	Sheridan
CS	Chase	LB	Labette	SH	Sherman
CQ	Chatauqua	LE	Lane	SM	Smith
CK	Cherokee	LV	Leavenworth	SF	Stafford
CN	Cheyenne	LC	Lincoln	ST	Stanton
CA	Clark	LN	Linn	SV	Stevens
CY	Clay	LG	Logan	SU	Sumner
CD	Cloud	LY	Lyon	TH	Thomas
CF	Coffey	MN	Marion	TR	Trego
CM	Comanche	MS	Marshall	WB	Wabaunsee
CL	Cowley	MP	McPherson	WA	Wallace
CR	Crawford	ME	Meade	WS	Washington
DC	Decatur	MI	Miami	WH	Wichita
DK	Dickinson	MC	Mitchell	WL	Wilson
DP	Doniphan	MG	Montgomery	WO	Woodson
DG	Douglas	MR	Morris	WY	Wyandotte
ED	Edwards	MT	Morton		
EK	Elk	NM	Nemaha		
EL	Ellis	NO	Neosho		
EW	Ellsworth	NS	Ness		
FI	Finney	NT	Norton		
FO	Ford	OS	Osage		
FR	Franklin	OB	Osborne		
GE	Geary	OT	Ottawa		
GO	Gove	PN	Pawnee		
GH	Graham	PL	Phillips		
GT	Grant	PT	Pottawatomie		
GY	Gray	PR	Pratt		
GL	Greeley	RA	Rawlins		
GW	Greenwood	RN	Reno		
HM	Hamilton	RP	Republic		
HP	Harper	RC	Rice		
HV	Harvey	RL	Riley		
HS	Haskell	RO	Rooks		

Table 3. Map of Kansas

[illegible]

Table 4. Cases of reportable diseases by year in Kansas, 1984-1997

DISEASE	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
AIDS														
AMEBIASIS	11	29	22	49	36	19	4	1	1	22	15	2	8	9
ANTHRAX	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BOTULISM, FOODBORNE	0	0	0	0	0	0	0	0	0	0	0	1	0	0
BOTULISM, INFANT	1	0	0	0	1	0	0	0	1	0	2	0	1	0
BOTULISM, OTHER	0	0	0	0	0	0	0	1	0	0	0	0	0	0
BRUCELLOSIS	2	2	1	0	0	1	1	0	0	0	0	0	1	0
CAMPYLOBACTERIOSIS	133	208	137	167	218	224	185	200	253	201	247	238	208	200
CHANCROID	0	0	0	4	1	1	13	5	3	1	5	2	2	0
CHICKENPOX *	10295	9069	10367	8310	346	494	3253	3367	4179	1687	3190	1582	876	78
CHLAMYDIA	600	1124	1522	3042	3701	3772	5218	6791	7024	5694	6393	5315	4448	4698
CHOLERA	0	0	0	0	1	0	0	0	0	0	0	0	0	0
CRYPTOSPORIDIOSIS +	-	-	-	-	-	-	-	-	-	-	1	31	11	14
DIPHTHERIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>E. coli</i> O157:H7 +	-	-	-	-	-	-	2	4	4	11	25	29	33	30
ENCEPHALITIS, PRIMARY	8	6	2	12	9	6	13	5	5	7	7	11	2	2
ENCEPHALITIS, SLE	0	0	0	2	0	0	0	0	0	0	0	0	0	0
ENCEPHALITIS, WEE	0	0	0	0	1	0	0	0	0	0	0	0	0	0
GIARDIASIS	577	646	537	659	561	419	380	309	521	385	415	395	237	230
GONORRHEA	7217	7006	6617	4482	4852	5183	4673	4637	4404	3710	3682	2797	2043	2094
GRANULOMA INGUINALE	0	0	1	0	0	0	0	0	0	0	0	0	0	0
HANSEN'S DISEASE	0	1	2	0	1	0	0	0	0	0	0	0	0	0
HANTAVIRUS PULM. SYN.	-	-	-	-	-	-	-	-	-	1	4	0	2	2
HEPATITIS A	70	97	137	402	396	276	271	89	141	79	111	162	393	262

Table 4. Cases of reportable diseases by year in Kansas, 1984-1997

DISEASE														
HEPATITIS B	87	97	94	99	159	121	139	56	66	65	31	53	32	32
HEP, C/NON-A NON-B	17	28	18	19	17	18	40	20	16	16	18	18	16	13
LEAD ≥ 10 $\mu\text{g/dL}$	-	-	-	-	-	-	-	-	-	545	1034	1202	1171	779
LEGIONELLOSIS	1	9	12	8	13	10	9	4	5	7	6	8	6	7
LEPTOSPIROSIS	0	0	0	1	0	0	0	0	0	0	0	0	0	0
LYME DISEASE	0	0	0	0	5	17	21	22	18	55	17	23	36	4
LYMPHOGRANULOMA VEN.	1	1	0	0	0	1	0	0	0	0	0	0	0	0
MALARIA	2	6	3	2	3	6	6	8	6	3	7	3	7	4
MEASLES	5	1	102	1	0	142	233	13	1	2	1	1	1	0
MENINGITIS, ASEPTIC	51	58	64	93	64	110	69	73	114	202	79	117	39	43
MENINGITIS, HIB	-	70	59	72	62	64	31	19	12	4	3	2	3	0
MENINGOCOCCAL DISEASE	37	16	16	28	25	9	22	26	17	36	28	28	27	26
MUMPS	62	51	61	74	205	297	91	31	3	1	1	0	2	1
PERTUSSIS	55	31	1229	17	6	12	27	12	34	24	18	23	14	33
PLAGUE	0	0	0	0	0	0	0	0	0	0	0	0	0	0
POLIOMYELITIS	0	0	0	0	0	0	-	-	0	0	0	0	0	0
PSITTACOSIS	0	1	0	0	0	0	1	0	1	0	0	0	0	0
RABIES, ANIMAL	53	63	63	33	39	58	45	63	374	79	35	46	37	89
RABIES, HUMAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RHEUMATIC FEVER	4	1	6	11	10	6	1	2	0	3	1	0	1	0
RMSF	18	27	10	28	28	18	18	6	5	1	4	4	2	7
RUBELLA	30	7	9	1	2	2	0	1	4	0	0	1	0	0
RUBELLA, CONGENITAL	0	0	0	0	0	0	0	0	1	0	0	0	0	0
SALMONELLOSIS	339	501	379	413	358	318	295	245	304	299	397	363	419	446

Table 4. Cases of reportable diseases by year in Kansas, 1984-1997

DISEASE														
SHIGELLOSIS	106	104	102	36	94	211	135	79	266	208	123	302	112	133
SYPHILIS, P AND S	59	34	35	30	38	82	87	201	203	129	74	47	28	32
SYPHILIS, CONGENITAL	-	-	0	1	0	0	2	0	2	3	2	2	0	0
SYPHILIS, ALL STAGES	186	139	152	103	139	175	177	373	356	282	188	147	136	174
TETANUS	1	0	1	3	0	0	0	0	0	2	1	2	0	0
TOXIC SHOCK SYNDROME	4	12	12	9	8	10	11	8	9	3	5	2	5	1
TRICHINOSIS	0	0	0	0	0	0	6	0	0	0	0	0	0	0
TUBERCULOSIS	77	82	72	60	58	72	78	62	56	83	84	89	73	78
TULAREMIA	4	8	8	8	8	6	7	5	3	3	7	10	3	4
TYPHOID FEVER	1	0	1	1	1	2	1	0	1	1	2	1	1	2
TYPHUS	0	1	0	0	1	0	0	0	0	0	0	0	0	0
URETHRITIS	463	837	898	1097	788	726	908	1006	871	912	914	822	522	381
VAGINITIS	2299	3250	4000	5374	5175	5285	4977	3975	3426	3489	2944	730	269	156
YELLOW FEVER	0	0	0	0	0	0	0	0	0	0	0	0	0	0
YERSINIOSIS	-	-	-	-	-	-	-	-	3	1	2	2	1	0

Table 5. Cases of reportable diseases by county in Kansas, 1997

	AL	AN	AT	BA	BB	BR	BT	BU	CA	CD	CF	CK	CL	CM	CN
AIDS	0	0	0	0	*	*	*	*	0	0	0	*	0	0	0
AMEBIASIS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CAMPYLOBACTERIOSIS	1	2	3	0	0	0	0	1	0	0	3	1	0	0	0
CHLAMYDIA	11	5	16	2	5	11	24	42	1	6	2	14	49	1	0
CRYPTOSPORIDIOSIS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>E. coli</i> O157:H7	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
ENCEPHALITIS, PRIMARY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GIARDIASIS	3	1	3	0	0	1	0	0	0	1	1	2	8	0	1
GONORRHEA	1	0	4	2	2	12	1	13	0	1	0	4	4	0	0
LEAD $\geq 10 \mu\text{g/dL}$ HANTAVIRUS	3 0	9 0	15 0	0 0	31 0	5 0	20 0	17 0	2 0	1 0	5 0	23 0	25 0	1 0	0 0
HEPATITIS A	0	1	0	0	1	0	2	1	0	4	1	21	17	0	0
HEPATITIS B	0	0	0	0	0	0	3	0	0	0	0	0	3	0	1
HEPATITIS, C/NON-A NON-B	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
LEGIONELLOSIS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LYME DISEASE	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
MALARIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MENINGITIS, ASEPTIC	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
MENINGOCOCCAL DISEASE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MUMPS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PERTUSSIS	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	AL	AN	AT	BA	BB	BR	BT	BU	CA	CD	CF	CK	CL	CM	CN

0	0	0	0	0	0	0	4	0	0	0	0	4	0	0
0	0	0	0	0	0	0	1	0	1	0	0	0	0	0

Table 5. Cases of reportable diseases by county in Kansas, 1997

[illegible]

Table 5. Cases of reportable diseases by county in Kansas, 1997

	CQ	CR	CS	CY	DC	DG	DK	DP	ED	EK	EL	EW	FI	FO	FR
AIDS	0	*	0	0	0	*	*	0	0	0	0	0	*	*	*
AMEBIASIS	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
CAMPYLOBACTERIOSIS	2	0	0	1	0	4	1	1	0	0	0	0	0	3	2
CHLAMYDIA	1	48	1	4	1	188	15	4	3	0	64	3	79	82	29
CRYPTOSPORIDIOSIS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>E. coli</i> O157:H7	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0
ENCEPHALITIS, PRIMARY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GIARDIASIS	0	1	0	0	0	3	0	0	0	0	0	0	3	3	3
GONORRHEA	0	18	0	4	0	54	0	1	0	0	6	2	6	5	5
HANTAVIRUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEPATITIS A	0	3	1	0	0	4	1	3	1	0	0	0	10	4	2
HEPATITIS B	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0
HEPATITIS, C/NON-A NON-B	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1
LEAD ≥ 10 $\mu\text{g/dL}$	1	16	2	3	0	8	2	2	1	0	13	4	1	12	5
LEGIONELLOSIS	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
LYME DISEASE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MALARIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MENINGITIS, ASEPTIC	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0
MENINGOCOCCAL DISEASE	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0
MUMPS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PERTUSSIS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CQ	CR	CS	CY	DC	DG	DK	DP	ED	EK	EL	EW	FI	FO	FR

Table 5. Cases of reportable diseases by county in Kansas, 1997

[illegible]

Table 5. Cases of reportable diseases by county in Kansas, 1997

	GE	GH	GL	GO	GT	GW	GY	HG	HM	HP	HS	HV	JA	JF	JO
AIDS	*	0	0	0	0	0	0	0	0	0	0	0	*	0	17
AMEBIASIS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
CAMPYLOBACTERIOSIS	0	0	0	0	0	1	0	0	0	1	0	2	1	2	44
CHLAMYDIA	321	0	1	0	18	7	2	0	2	7	2	34	9	13	293
CRYPTOSPORIDIOSIS	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
<i>E. coli</i> O157:H7	0	0	0	0	0	1	0	0	0	0	0	0	0	1	6
ENCEPHALITIS, PRIMARY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
GIARDIASIS	2	0	0	0	1	1	0	0	1	0	0	3	0	2	41
GONORRHEA	116	0	0	0	1	0	0	1	0	0	0	4	2	2	95
HANTAVIRUS	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
HEPATITIS A	0	0	0	0	0	0	0	0	0	1	0	1	0	2	22
HEPATITIS B	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5
HEPATITIS, C/NON-A NON-B	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
LEAD ≥ 10 $\mu\text{g/dL}$	0	1	0	0	0	2	2	0	1	7	1	1	8	0	13
LEGIONELLOSIS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
LYME DISEASE	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
MALARIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
MENINGITIS, ASEPTIC	0	0	0	0	0	0	1	0	0	0	0	1	0	0	9
MENINGOCOCCAL DISEASE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MUMPS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PERTUSSIS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
	GE	GH	GL	GO	GT	GW	GY	HG	HM	HP	HS	HV	JA	JF	JO

Table 5. Cases of reportable diseases by county in Kansas, 1997

[illegible]

Table 5. Cases of reportable diseases by county in Kansas, 1997

	JW	KE	KM	KW	LB	LC	LE	LG	LN	LV	LY	MC	ME	MG	MI
AIDS	0	0	0	0	*	0	0	0	0	*	*	0	0	*	0
AMEBIASIS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CAMPYLOBACTERIOSIS	0	5	3	1	2	0	0	0	0	7	1	1	2	1	4
CHLAMYDIA	0	11	4	4	18	4	0	2	5	90	69	18	2	46	18
CRYPTOSPORIDIOSIS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>E. coli</i> O157:H7	0	0	0	0	0	0	0	0	0	2	1	0	0	0	1
ENCEPHALITIS, PRIMARY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GIARDIASIS	0	0	0	1	4	3	0	0	0	6	4	1	0	5	0
GONORRHEA	0	3	0	0	16	0	0	0	0	22	5	9	0	20	2
HANTAVIRUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEPATITIS A	0	0	1	0	0	0	0	0	3	3	0	0	1	43	0
HEPATITIS B	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
HEPATITIS, C/NON-A NON-B	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
LEAD ≥ 10 $\mu\text{g/dL}$	0	0	0	2	13	0	1	0	4	12	15	1	0	16	0
LEGIONELLOSIS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LYME DISEASE	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
MALARIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MENINGITIS, ASEPTIC	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
MENINGOCOCCAL DISEASE	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
MUMPS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PERTUSSIS	0	0	0	0	1	0	0	0	0	1	1	0	0	1	1
	JW	KE	KM	KW	LB	LC	LE	LG	LN	LV	LY	MC	ME	MG	MI

0 0 0 0 3 0 0 0 0 0 3 0 0 6 0

Table 5. Cases of reportable diseases by county in Kansas, 1997

[illegible]

Table 5. Cases of reportable diseases by county in Kansas, 1997

	MN	MP	MR	MS	MT	NM	NO	NS	NT	OB	OS	OT	PL	PN	PR
AIDS	0	*	0	0	0	0	*	*	0	0	0	0	0	0	0
AMEBIASIS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CAMPYLOBACTERIOSIS	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
CHLAMYDIA	5	34	2	8	2	3	4	2	3	2	10	3	0	8	12
CRYPTOSPORIDIOSIS	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
<i>E. coli</i> O157:H7	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
ENCEPHALITIS, PRIMARY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GIARDIASIS	1	2	1	0	0	2	0	0	0	1	0	1	0	1	0
GONORRHEA	1	1	0	0	0	1	0	0	0	0	1	1	0	3	1
HANTAVIRUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEPATITIS A	0	2	0	1	0	0	0	0	0	0	1	0	0	0	2
HEPATITIS B	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
HEPATITIS, C/NON-A NON-B	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
LEAD ≥ 10 $\mu\text{g/dL}$															
LEGIONELLOSIS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LYME DISEASE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MALARIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MENINGITIS, ASEPTIC	0	0	1	0	0	1	0	0	0	0	1	0	0	0	0
MENINGOCOCCAL DISEASE	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0
MUMPS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PERTUSSIS	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
	MN	MP	MR	MS	MT	NM	NO	NS	NT	OB	OS	OT	PL	PN	PR

Table 5. Cases of reportable diseases by county in Kansas, 1997

[illegible]

Table 5. Cases of reportable diseases by county in Kansas, 1997

	PT	RA	RC	RH	RL	RN	RO	RP	RS	SA	SC	SD	SF	SG	SH
AIDS	0	0	0	0	*	*	0	0	0	*	0	0	0	48	0
AMEBIASIS	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
CAMPYLOBACTERIOSIS	0	0	0	1	4	3	0	0	1	1	0	0	2	19	0
CHLAMYDIA	13	2	7	3	170	82	5	0	7	75	1	0	1	1148	5
CRYPTOSPORIDIOSIS	0	0	0	0	0	1	0	0	0	0	0	0	0	10	0
<i>E. coli</i> O157:H7	0	0	0	0	1	4	0	0	0	0	0	0	0	3	0
ENCEPHALITIS, PRIMARY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GIARDIASIS	2	0	0	0	8	4	0	0	0	0	0	0	0	30	0
GONORRHEA	6	0	0	0	41	7	0	0	1	23	0	0	0	613	2
HANTAVIRUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEPATITIS A	0	0	0	0	2	2	0	0	0	0	0	0	0	33	0
HEPATITIS B	0	0	0	0	0	2	0	0	0	1	0	0	0	4	0
HEPATITIS, C/NON-A NON-B	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0
LEAD ≥ 10 $\mu\text{g/dL}$															
LEGIONELLOSIS	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0
LYME DISEASE	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
MALARIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MENINGITIS, ASEPTIC	0	0	0	0	0	2	0	0	0	0	1	0	0	4	0
MENINGOCOCCAL DISEASE	0	0	0	0	2	1	0	0	0	5	0	0	0	8	0
MUMPS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PERTUSSIS	0	0	0	0	2	0	0	0	0	0	0	0	0	9	0
	PT	RA	RC	RH	RL	RN	RO	RP	RS	SA	SC	SD	SF	SG	SH

Table 5. Cases of reportable diseases by county in Kansas, 1997

[illegible]

Table 5. Cases of reportable diseases by county in Kansas, 1997

	SM	SN	ST	SU	SV	SW	TH	TR	WA	WB	WH	WL	WO	WS	WY	TOTAL
AIDS	0	12	0	*	0	*	0	0	0	*	0	0	0	*	23	145
AMEBIASIS	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	9
CAMPYLOBACTERIOSIS	0	36	0	1	0	0	0	0	0	0	2	0	0	1	18	200
CHLAMYDIA	0	438	8	23	2	26	4	1	0	3	1	4	8	0	852	4698
CRYPTOSPORIDIOSIS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
<i>E. coli</i> O157:H7	0	2	0	0	0	0	0	0	0	0	0	0	0	0	1	30
ENCEPHALITIS, PRIMARY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
GIARDIASIS	0	30	0	4	0	7	0	0	0	0	1	2	0	1	23	230
GONORRHEA	0	257	0	5	2	9	1	0	0	2	0	0	0	0	673	2094
HANTAVIRUS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
HEPATITIS A	0	4	0	1	0	0	1	0	0	0	0	6	0	1	52	262
HEPATITIS B	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	32
HEPATITIS, C/NON-A NON-B	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	13
LEAD ≥ 10 $\mu\text{g/dL}$																
LEGIONELLOSIS	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	7
LYME DISEASE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
MALARIA	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4
MENINGITIS, ASEPTIC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	43
MENINGOCOCCAL DISEASE	1	0	0	0	0	0	0	0	0	1	0	0	0	0	1	26
MUMPS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
PERTUSSIS	0	0	0	1	0	0	0	0	0	0	0	0	0	0	6	33
	SM	SN	ST	SU	SV	SW	TH	TR	WA	WB	WH	WL	WO	WS	WY	TOTAL

Table 5. Cases of reportable diseases by county in Kansas, 1997

[illegible]

Table 6. Publications on disease control in Kansas, 1997

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